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Analysis of Final State Implementation Plans

rules and regulations

Mitre Corporation

prepared for

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ANALYSIS OF FINAL STATE IMPLEMENTATION PLANS - RULES AND REGULATIONS

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Office of Air Programs
Stationary Source Pollution Control Programs
Research Triangle Park, North Carolina 27711

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The document summarizes the rules and regulations found in State Implementation Plans (SIP) submitted in response to the 1970 Clean Air Act. Final SIP's were submitted by all 50 states, the District of Columbia, Puerto Rico, American Samoa, Guam, and the Virgin Islands. Whenever both state regulations were extracted and put in the summary table, with footnotes indicating the local regulations. The regulations cover particulate and gaseous emissions. The particulate emission regulations refer to: Fuel burning; Incineration; General process sources; Visible emissions, and Sulfuric acid plants. The following gaseous emissions are covered: Fuel burning (SO_2); Fuel burning (NOx); non-ferrous metals (SO_2); Kraft pulp (SO); Sulfuric acid plants (SO_2); Sulfur recovery plants (sulfur); Nitric acid plants (NO_2); All sources (hydrocarbons); Petroleum storage; All sources (CO).

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ANALYSIS OF FINAL STATE IMPLEMENTATION PLANS - RULES AND REGULATIONS

by
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Prepared for
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Office of Air Programs
Stationary Source Pollution Control Programs
Research Triangle Park, N. C. 27711
July 1972

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FOREWORD

This paper was written to summarize the rules and regulations found in State Implementation Plans submitted in response to the 1970 Clean Air Act. This work was performed under the direction of Mr. Joseph Padgett, Chief, Systems Analysis Staff, Office of Air Programs, Stationary Source Pollution Control Program. We wish to thank Mrs. Josephine Cooper and the other EPA personnel for the information and help they provided to us for this project.

Because this paper contains numerous lengthy tables which would break up the text and make it difficult to follow, all tables and their footnotes have been placed at the end of the paper. These tables are part of the main paper, but were positioned at the end only for the convenience of the reader.

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1.0 INTRODUCTION

Final State Implementation Plans (SIP's) were submitted by all 50 states, the District of Columbia, Puerto Rico, American Samoa, Guam and the Virgin Islands. Since submission of the plans, California has revised its rules and regulations section. Their amended plan now lists separate regulations for each of California's 50 counties. No statewide regulations exist which could be included in this document, so the 50 sets of California county regulations must be reviewed and summarized individually. EPA will prepare a separate document to summarize the California county regulations and to serve as a supplement to this report.

Whenever both state regulations and local regulations were included in a plan, the state regulations were extracted and put in the summary tables, with footnotes indicating the local regulations. If the local regulation was the same as for the state, the regulation was not restated. The regulations appear as they did in the SIP's, and in some cases, may be promulgated by EPA.

Although the tables contain only summaries of the regulations, a high degree of detail has been used. But the reader who must use specific detailed regulations is advised to refer to the individual plans, for it must be remembered that the purpose of the tables presented here is only to summarize the emission regulations in a convenient format.

Emission regulations were extracted for the following:

- Particulate
  - Fuel Burning — Table I
  - Incineration — Table II
  - General Process Sources — Table III
  - Aluminum Process Sources — Table IV
  - Gray Iron Foundries — Table V
  - Iron and Steel Process Sources — Table VI
  - Asphalt Batching — Table VII
  - Concrete Batching — Table VIII
  - Feed and Grain Processes — Table IX
  - Secondary Non-Ferrous Operations — Table X
  - Phosphate Fertilizer Operations — Table XI
  - Petroleum Refining Operations — Table XII
  - Coal Cleaning Processes — Table XIII
  - Lime Kiln — Table XIV
  - Kraft Pulp — Table XV
  - Visible Emissions — Table XVI
  - Sulfuric Acid Plants (Mist) — Table XVII
- Gaseous
  - Fuel Burning (sulfur dioxide) — Table XVIII
  - Fuel Burning (nitrogen oxides) — Table XIX
  - Non-Ferrous Metals (sulfur dioxide) — Table XIX
  - Kraft Pulp (sulfur oxide) — Table XX

- o Sulfuric Acid Plants (sulfur dioxide) Table XVII
- o Sulfur Recovery Plants (sulfur) Table XVII
- o Nitric Acid Plants (nitrogen dioxide) Table XVII
- o All Sources (Hydrocarbons) Table XXI
- o Petroleum Storage Table XXII
- o All Sources (Carbon Monoxide) Table XXIII

2.0 PARTICULATE EMISSION REGULATIONS

2.1 Fuel Burning

Generally, the regulations regarding particulate emissions from fuel burning sources were expressed in pounds per million British Thermal Units of heat input per hour (lbs. particulate/10^6 BTU/hr.). In a few cases, the regulation was expressed as grains per standard cubic foot (gr/scf). In order to convert these to lbs. particulate/10^6BTU/hr., the following conversion factor was used: 0.12 gr/scf = 0.2 lbs/10^6BTU. Regulations expressed in other units appear in the footnotes.

Of the 55 states submitting final regulations approximately 16 (30%) added regulations for particulate emissions from fuel burning sources or altered that regulation which appeared in their preliminary plan. Table I summarizes these most recent regulations.

2.2 Incineration

About half of the SIP's expressed their regulations regarding particulate emissions from incineration sources in grains per standard cubic feet (gr/scf) while the other half used the units pounds particulate per 100 pounds refuse charged (lbs. part/100 lbs. refuse). The following conversion factor was used to convert gr/scf to lbs. part/100 lbs. refuse: 0.1 gr/scf = 0.095 lbs/100 lbs. refuse. Some regulations appear to differ by 0.01 lbs/100 lbs. refuse. This is very likely the result of some states rounding their values while others may have truncated the last decimal place. Consequently, regulations which appear to be 0.01 lbs/100 lbs. refuse less than another are not necessarily more stringent regulations.

None of the regulations in either the Texas final or preliminary SIP's seemed to apply to particulate emissions from incinerators. Of the 54 states which did submit applicable final regulations, 14 (26%) had added or significantly modified their regulation from that which appeared in their preliminary plan. These final regulations have been summarized in Table II.

2.3 General Process Sources

Almost every SIP included a "general" process weight table and a number of states also submitted at least one process weight table for a specific industry. Sections which follow summarize the process weight tables for nine of the specific industries. Other

industries have particulate regulations which are not expressed as process weight tables. These regulations are summarized in Tables XIII, XIV and XV. A few specialized regulations for such things as cotton ginning did appear in the plans but are only mentioned here to advise of their existence and they were not summarized for this paper. Table III summarizes the general tables and is expressed in the units pounds emitted per hour (lbs./hr.) as a function of the process weight rate in pounds per hour (lbs./hr.). Most states also supplied an equation to be used for interpolation between the values included in their tables. There was very little variation between the process weight tables which various states gave for their regulation, but many states changed or expanded the general process weight tables which they had presented in their preliminary plans.

The number of states which stated particulate regulations for various specific industries are shown below, and the number of the table in which the regulations can be found is indicated.

Industry	No. of States	Table
Aluminum Process Sources	5	IV
Gray Iron Foundries	15	V
Iron and Steel Process Sources	6	VI
Asphalt Batching	19	VII
Concrete Batching	15	VIII
Feed and Grain Processes	7	IX

Secondary Non-Ferrous Operations	4	X
Phosphate Fertilizer Operations	4	XI
Petroleum Refining Operations	6	XII
Coal Cleaning Processes	3	XIII
Lime Kilns	4	XIV
Kraft Pulp	13	XV

2.4 Visible Emissions

Table XVI summarizes the visible emission regulations, expressed as percent opacity, which were presented in the final SIP's. In most cases the regulations were noted as both the allowable Ringelmann Number and the percent opacity, but if only the Ringelmann Number was given, the following table was used to convert to percent opacity:

Ringelmann Number	% Opacity
0.5	10%
1.0	20%
1.5	30%
2.0	40%
3.0	60%
4.0	80%
5.0	100%

The states appear to be heading for a universal regulation of 20% opacity for all sources, although many states still permit higher emissions for old equipment.

2.5 Sulfuric Acid Plants

Emission regulations applicable to sulfuric acid mist emissions from sulfuric acid plants were included in the SIP's of only 26 states. Generally, the regulations were expressed as pounds of acid mist per ton of acid (100% H_2SO_4) produced (lbs/ton 100% acid). Arkansas, Colorado, and Missouri specify only ground level concentrations which may not be exceeded. The most up-to-date sulfuric acid mist regulations are summarized in Table XVII.

3.0 GASEOUS EMISSION REGULATIONS

3.1 Fuel Burning (Sulfur Dioxide)

Because of the large amount of interest within EPA in the sulfur regulations, Table XVIII which summarizes these regulations is more detailed than the other tables included in this report. Since it is also anticipated that this Table will be used more regularly than the others, it was formatted differently. Remarks which ordinarily appear in footnotes at the end of the table have been noted in the table itself to the right of the appropriate regulations for easy access. The other major difference between this table and the others is that a separate notation has been made for every local area having regulations whether or not these regulations differed from the state ones and regardless of whether or not the local areas had specified a sulfur regulation. (For the other tables, as was mentioned earlier, all local regulations were reviewed but only those which differed from the state regulations

were noted.) No regulations applying to sulfur dioxide emissions from fuel burning nor for sulfur limitations on fuel could be found in the Wyoming final SIP.

Fuel limitations have been listed separately for coal and oil and were expressed as either % sulfur content allowable or pounds of sulfur per million British Thermal Unit (lbs. $S/10^6BTU$). Those values expressed in lbs. $S/10^6BTU$ appear in parentheses. The rest of the columns show the allowable sulfur dioxide emissions for various rates of heat input. These regulations are expressed as maximum allowable pounds of sulfur dioxide emitted per million British Thermal Unit of heat input per hour (lbs. $SO_2/10^6BTU$). Some states gave their emission regulations in lbs. $S/10^6BTU$. These numerical values were multiplied by two to convert them to lbs. $SO_2/10^6BTU$.

3.2 Fuel Burning (Nitrogen Oxides)

Ten states which did not list regulations for nitrogen oxide emissions from fuel burning sources in their preliminary plans included such regulations in their final SIP's. All those states with regulations for nitrogen oxide emissions stated them in terms of the type of fuel used (gas, liquid, or solid), and expressed them in pounds of nitrogen oxides per million British Thermal Units of heat input per hour (lbs. $NO_x/10^6BTU$). In a few cases the regulation was given in lbs. $NO_2/10^6BTU$, but the table does not note this.

Most states which specified nitrogen oxide regulations used (a) 0.2 lbs. $NO_x/10^6$BTU as the maximum allowable emissions when gas is the fuel; (b) 0.3 lbs. $NO_x/10^6$BTU as the maximum allowable emissions when liquid fuel is used and (c) 0.7 lbs. $NO_x/10^6$BTU as the maximum allowable emissions when solid fuel is used.

The first three columns of Table XIX show those regulations found in the final SIP's which apply to nitrogen oxide emissions from fuel burning sources.

3.3 Non-Ferrous Metals (Sulfur Dioxide)

Sulfur dioxide emission regulations covering non-ferrous smelters concern only copper, zinc, and lead smelters. Just 12 states have such regulations and they are summarized in the last three columns of Table XIX. All these regulations were expressed in pounds of sulfur dioxide emitted per hours (lbs. SO_2/hr.) and as a function of total sulfur feed to the smelter expressed in pounds of sulfur per hour (lbs/hr.).

The table shows the regulations as an expression in x, but they are all equal to y, as shown by the Arizona regulation for copper smelters. The variable x equals total sulfur feed (lb/hr.) and y represents the corresponding allowable sulfur dioxide emissions (lbs. SO_2/hr.).

In the preliminary plans, both Mississippi and Ohio gave regulations for zinc smelters of $y = 0.564\ x^{0.35}$. In the final plans, both states changed these to $y = 0.564\ x^{0.85}$. The state

of Connecticut added regulations for non-ferrous smelters to their final plan and the only other change in these regulations from what appeared in the preliminary plans was made by Puerto Rico. Their regulation for copper was changed from $y = 0.2x$ to $y = 0.1x$.

3.4 Kraft Pulp (Sulfur Oxide)

Some states stated specific regulations for sulfur oxides emitted from Kraft Pulp processes. These regulations have been summarized in Table XX.

3.5 Sulfuric Acid Plants (Sulfur Dioxide)

Regulations covering sulfur dioxide emissions from sulfuric acid plants are summarized in column 2 of Table XVII. There were 24 states which did not include this type of regulation in their final plan.

Arkansas, Colorado, and Missouri gave their regulations in terms of ground level concentration standards. Other states with regulations expressed them in lbs. SO_2/ton 100% acid. The range of emissions allowed by various states was great, from 4.0 lbs. SO_2/ton 100% acid to 45 lbs. SO_2/ton 100% acid. Figure 1 shows a distribution of these regulations. Utah's regulation which specifies 80% control was not included in this diagram, and when separate regulations were specified for new and existing plants, the limitation for new plants was used.

3.6 Sulfur Recovery Plants (Sulfur)

Most states expressed their sulfur emissions regulation applying to sulfur recovery plants in pounds of sulfur per pound of input sulfur (lbs. S/lb. input). These were the units used for

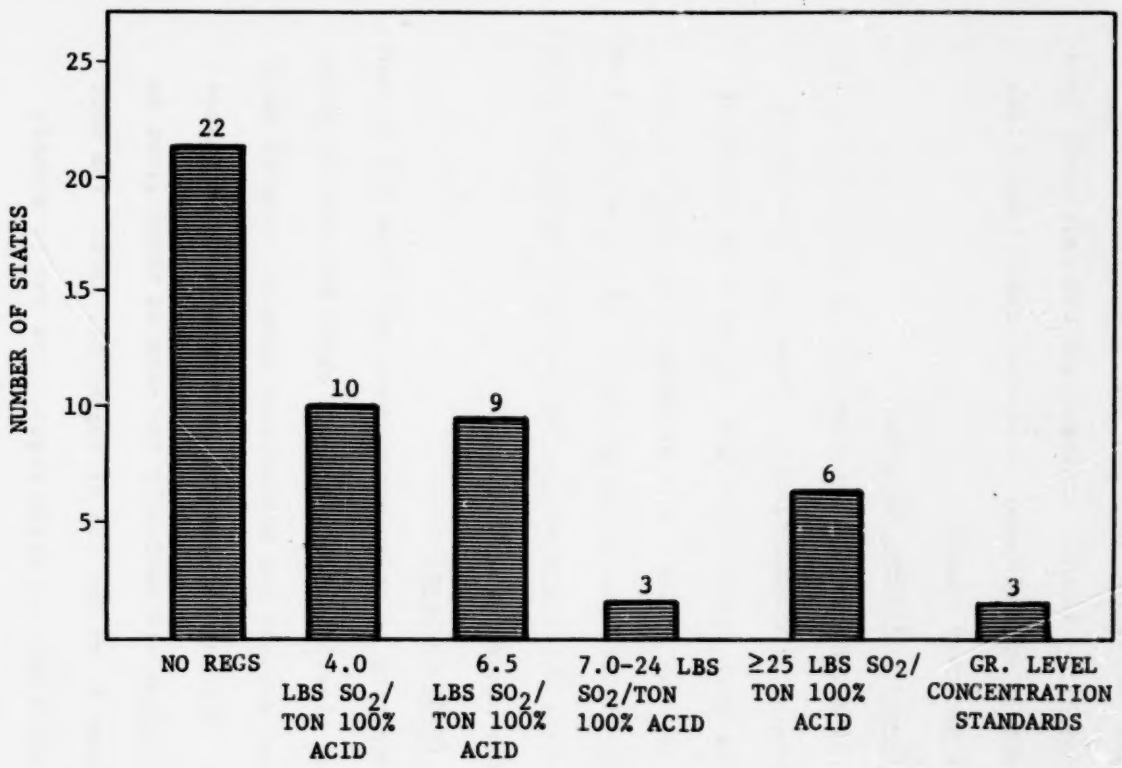

FIGURE 1
DISTRIBUTION OF REGULATIONS FOR SULFUR DIOXIDE EMISSIONS FROM SULFURIC ACID PLANTS

the table prepared to summarize these regulations (column 3 of Table XVII). A majority of those states which have sulfur emission regulations for sulfur recovery plants, specified the same regulation, 0.01 lbs S/lb. input. Arkansas and Colorado again used ground level concentration standards to express their regulations applying to Sulfur Recovery Plants.

3.7 Nitric Acid Plants (Nitrogen Dioxide)

Twenty-two states have regulations specifying allowable nitric oxide emissions from nitric acid plants. These regulations are summarized in Table XVII column 4 and are expressed in pounds of nitrogen dioxide per ton of 100% acid produced (lbs. NO_2/ton 100% acid). Generally, states have a regulation of 5.5 lbs NO_2/ton 100% acid. The only state which stated its regulation in terms of ground level concentration standards was Colorado.

3.8 All Sources (Hydrocarbons)

Regulations applying to hydrocarbons were specified for as many as seven different classifications and are expressed more in terms of required control devices and precautions than in terms of emission limitations. The regulations for hydrocarbons which states included in their plans are basically the same as those given in the Federal Register V. 36 No. 158 of August 14, 1971. The most common change a state made in these regulations was to specify a different tank capacity.

In order to summarize these regulations in a concise manner, Table XXI was prepared to show which states have which type of hydrocarbon regulation. Brief summaries of the corresponding regulations which appeared in the above-mentioned Federal Register and the SIP's are listed below. A total of 31 states included hydrocarbon regulations in their final SIP's.

1) Storage of Volatile Organic Compounds: No person shall place, store or hold in any stationary tank of more than 40,000 gallons capacity any volatile organic compounds unless such tank is a pressure tank capable of maintaining working pressures at all times to prevent vapor or gas loss to the atmosphere or is designed and equipped with one of the following vapor loss control devices: floating roof, vapor recovery system, other equipment or means of equal efficiency for purposes of air pollution control as approved by the agency.

2) Volatile Organic Compounds Loading Facilities: No person shall load or permit the loading of any volatile organic compounds into any tank having a capacity in excess of 200 gallons unless such loading facility is equipped with a vapor collection and disposal system or its equivalent, properly installed, in good working order and in operation.

3) Volatile Organic Compound Water Separation: No person shall use any compartment of any single or multiple compartment volatile organic compound water separation which receives effluent water

containing 200 gallons a day or more of any volatile organic compound from equipment processing, refining, treating, storing or handling volatile organic compounds unless such compartment is equipped with one of the following vapor loss control devices, properly installed, in good working order, and in operation:

a) A container having all openings sealed and totally enclosing the liquid contents. All gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.

b) A container equipped with a floating roof. All gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.

c) A container equipped with a vapor recovery system. All gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.

d) A container having other equipment of equal efficiency for purposes of air pollution control may be approved.

4) Pumps and Compressors: All pumps and compressors handling volatile organic compounds shall have mechanical seals or other equipment of equal efficiency.

5) Waste Gas Disposal: No person shall emit a waste gas stream from any ethylene producing plant or other ethylene emission source unless the waste gas is properly burned at 1300°F for 0.3 seconds or greater in a direct-flame afterburner.

6) Organic Solvents: No person shall discharge into the atmosphere more than 15 pounds of organic materials in any one day, nor more than 3 pounds in any one hour, from any article, machine, equipment and other contrivance unless said discharge has been reduced by at least 85 percent. This shall be accomplished by:

   a) Incineration, provided that 90 percent or more of the carbon in the organic compounds being incinerated is oxidized to carbon dioxide, or

   b) carbon absorption, or

   c) processing in a manner determined by the Commissioner to be not less effective than the above two methods.

7) Architectural Coatings: No person shall cause or allow the sale of any architectural coating containing a photochemically reactive solvent in containers of greater than one gallon capacity; no person shall thin or dilute any architectural coating in quantities greater than one quart of a photochemically reactive solvent.

3.9 Petroleum Storage

The hydrocarbon regulations for petroleum storage which were noted in Table XXI have been shown in detail in Table XXII. This table was prepared to show the degree of variation in these regulations. For detailed statements of the other hydrocarbon regulations outlined in Table XXI, the reader should see the individual state plans, but again there is little variation between the wording of these regulations.

3.10 All Sources (Carbon Monoxide)

Fourteen states specified regulations for the control of carbon monoxide emissions. Generally, these states specified the following regulation with only minor variations: no person shall emit carbon monoxide waste gases unless they are burned at 1300°F for 0.3 seconds or greater in a direct flame afterburner or boiler equipped with an indicating pyrometer.

Table XXIII shows which states specified carbon monoxide regulations for certain industries.

4.0 SUMMARY

Numerous changes and additions were made to the regulations given in the preliminary plans before they were included in the final plans. In order to prepare summaries of the sets of these emission regulations included in this paper, final SIP's were reviewed for 55 states and additions and changes received before 14 July 1972 were also used. Because California submitted an amended plan with separate regulations for each county, it will be summarized separately. Figures 2 and 3 show the number of states out of the 55 whose plans were reviewed that actually included a regulation for each of the major emission categories dealth with in this paper. California was included in these figures to complete the picture of the regulations for the entire United States.

While virtually every state has regulations for sulfur dioxide from fuel burning and all the particulate emission classes except sulfuric acid mist, the number of states passing regulations for gaseous emissions is considerably less. Although the fewest regulations

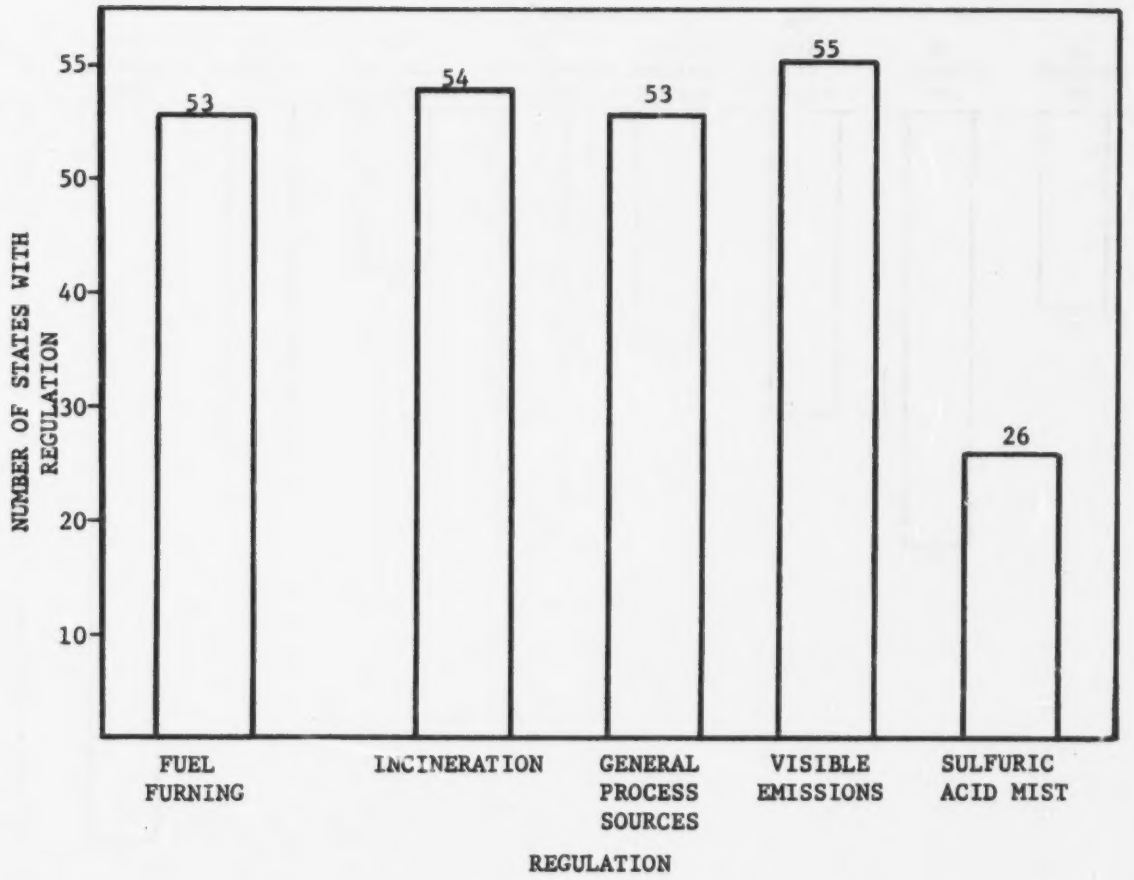

FIGURE 2

NUMBER OF STATES WHICH INCLUDED SPECIFIED PARTICULATE REGULATIONS

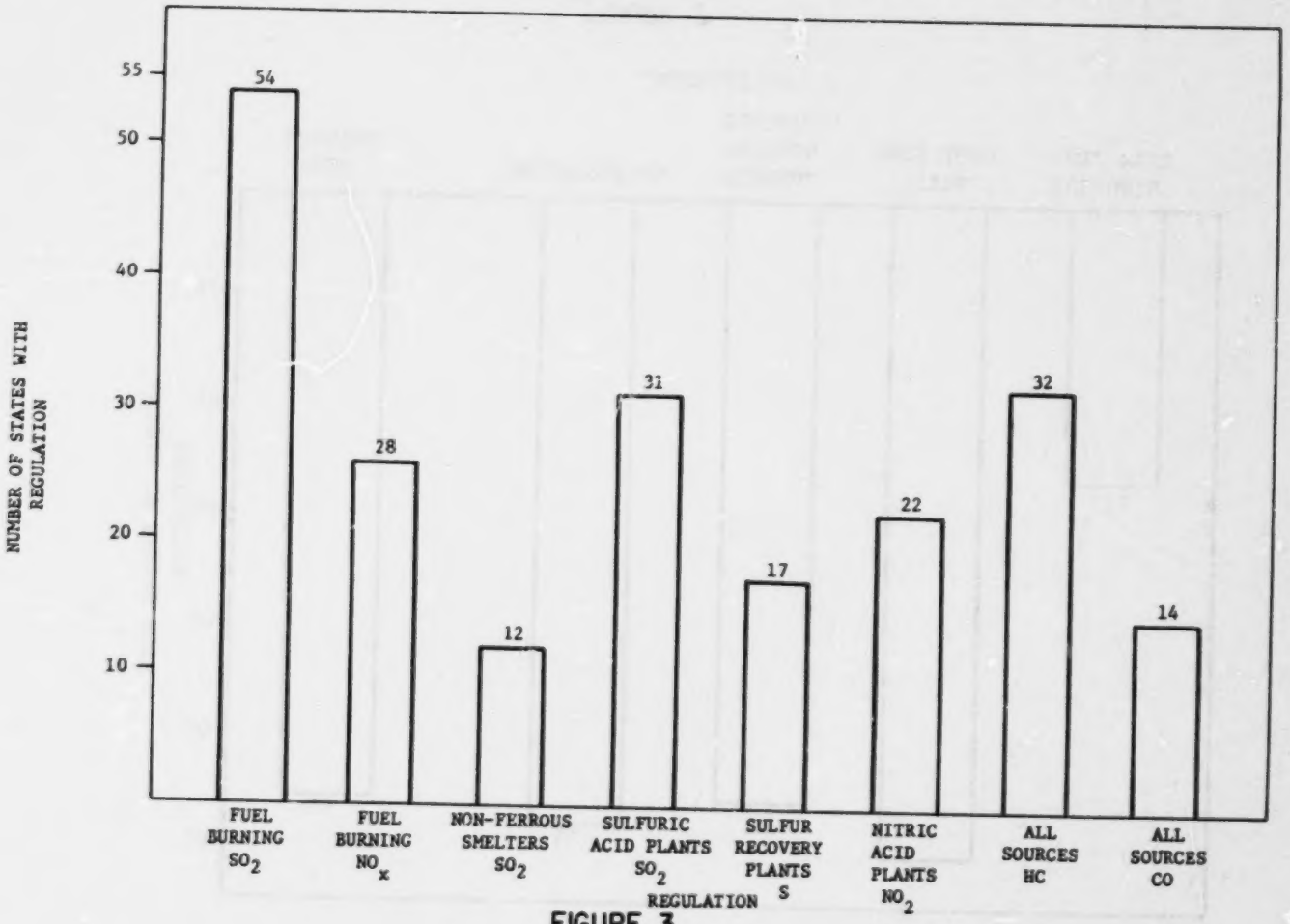

FIGURE 3

NUMBER OF STATES WHICH INCLUDED GASEOUS REGULATIONS

were passed for non-ferrous smelters, this is probably due in part to the fact that very few states actually have operating non-ferrous smelters.

The regulations which varied the most from state to state are those which applied to Fuel Burning (Particulate and Sulfur Dioxide) and Incineration emissions. Very little variation was noted in the general process tables or in the visible emissions regulations. Although significantly fewer states submitted regulations for Sulfuric Acid Plants, Sulfur Recovery Plants, Nitric Acid Plants, Non-Ferrous Metals, and Carbon Monoxide, most of them adapted the same basic regulations, adding slight modifications when necessary for specific areas. States specifying hydrocarbon regulations did not always include each of the seven different classes or regulations, but within any one class the overall meaning of the different state regulations was the same.

The tables presented in this paper have been prepared to give the reader a convenient summary of the most recent state air pollution emission regulations. They provide ready comparison of the basic regulations as stated in each state's final SIP, and footnotes were used to indicate exceptions or qualifications of the basic regulations. No attempt has been made to use these tables to present the specified regulations in their entirety.

TABLE I

REGULATIONS APPLICABLE TO FUEL BURNING SOURCES

MAXIMUM LB PARTICULATE / 10^6 BTU/hr

MILLION BTU/HR HEAT INPUT

	<1	≤10	>10	20	50	100	≤200	>200	≤250	>250	≤500	>500	1000	2500	5,000	7500	10,000	>10,000	50,000	10^5	ALL
Alabama[1]	0.50	0.50		0.37	0.27[2]	0.18	0.13[3]		0.12[4]											0.12[5]	
Alaska																					
Arizona		0.60			0.41[6]	0.352					0.242		0.207				0.0904		0.0243[7]		0.1
Arkansas[8]																					
California[9]	0.50	0.27				0.15						0.1									
Colorado																					
Connecticut																					
Delaware																					
Dist.of Col.	0.13[12]	0.10				0.07					0.3	0.3[11]	0.04				0.02				0.20[10]
Florida										0.1[13]											
Georgia[14]		0.70											15	0.24[16]							
Hawaii																					
Idaho		0.6																0.12			0.6[17]
Illinois																					
Indiana																					0.1[18]
Iowa																					0.6[19]
Kansas		0.6			0.41	0.35					0.24		0.21		0.14	0.13	0.12	0.12			0.6[20]
Kentucky		0.56			0.38	0.32			0.26		0.22		0.19	0.15	0.13	0.13		0.11			
Louisiana								0.3[21]													
Maine		0.6																			0.6
Maryland[22]		0.6				0.35			0.083[23]	0.05[23]			0.20				0.12	0.12			
Massachusetts																					
Michigan[24]																					
Minnesota																					
Mississippi		0.6				0.41[26]							0.26[26]				0.19[26]	0.19[26]			0.4[25]
Missouri[27]		0.6			0.41	0.35					0.24		0.21		0.14	0.13	0.12	0.12			
Montana[28]		0.6				0.40							0.28				0.19	0.19			
Nebraska		0.6				0.35							0.21				0.12	0.12			
Nevada		0.6				0.352							0.207				0.090			0.024	
New Hampshire[29]		0.6			0.46	0.40					0.31		0.28	0.24	0.22	0.20	0.19	0.19			
New Jersey		0.6		0.48	0.22	0.15		0.10					0.19		0.15	0.141	0.135				0.05[30]
New Mexico		0.56		0.48	0.38	0.33			0.34				0.225		0.158		0.136				
New York[31]		0.60		..55	0.44	0.37							0.18				0.10	0.10			
N. Carolina		0.60				0.33							0.328	0.291	0.266	0.252	0.242		0.197	0.180	
N. Dakota[19]		0.60			0.486	0.443							0.1				0.1			0.1	
Ohio[32]		0.4				0.2							0.2				0.1	0.1			
Oklahoma		0.6				0.35															
Oregon																					
Pennsylvania					0.4[34]						35										0.17[33]
Rhode Island[36]																					
S. Carolina		0.8[37]									0.6[38]										
S. Dakota																					
Tennessee[39]		0.6		0.4		.16				0.1											0.3
Texas																					
Utah[40]																					0.3
Vermont		0.5		0.3					0.1[41]				0.02[42]								
Virginia				0.4[43]	44																
Washington																		0.10			
W. Virginia[46]																					0.33[45]
Wisconsin[47]									0.15	0.10											0.05
Wyoming[48]		0.6				0.4							0.27				0.18	0.18			
A. Samoa																					
Guam[8]																					0.1
Puerto Rico																					
Virgin Islands		0.6				0.352							0.207				0.09	0.09			0.3

TABLE I - REGULATIONS APPLICABLE TO FUEL BURNING SOURCES (CONT'D)

[1]for all sources in Class I counties and for new sources in Class II counties; for existing sources in Class II counties:

HEAT INPUT (Millions of BTU/HR)	ALLOWABLE EMISSION ($lb/10^6$ BTU)
1	0.8
10	0.8
20	0.53
40	0.35
100	0.21
200	0.14
250	0.12
1,000,000	0.12

[2]for 40 million BTU/hr

[3]for 200 million BTU/hr

[4]for 250 million BTU/hr

[5]for 1,000,000 million BTU/hr

[6]for 40 million BTU/hr

[7]0.0607 for 20,000 x 16^6 BTU/hr

[8]no general regulation stated in final plan

[9]each county has its own regulations

[10]for existing sources; 0.10 lbs/10^6 BTU for new sources

[11]after January 1, 1973

[12]for <3.5 million BTU/hr

[13]utilize latest technology for sources with <250 million BTU/hr capacity

[14]for existing equioment; for new equipment:
0.5 lbs/10^6 BTU for <10 million BTU/hr
$P = 0.5\ (10/R)^{0.5}$ lbs/10^6 BTU for ≤250 million BTU/hr
0.10 lbs/10^6 BTU for >250 million BTU/hr

[15]$P = 0.7\ (10/R)^{0.202}$ lbs/10^6 BTU for equipment ≤2000 million BTU/hr

[16]for >2000 million BTU/hr

[17]converted from bagasse

[18]for all new sources and for all existing sources in Chicago and those existing sources outside of Chicago with ≥250 million BTU/hr capacity. Exceptions are sources presently not exceeding 0.2 lbs/10^6 BTU. These sources are not allowed to degrade more than 0.05 lbs/10^6 BTU

[19]for new installations; 0.8 lbs/10^6 BTU for existing installations

[20]0.8 lbs/10^6 BTU for existing equipment outside any SMSA

[21]for >150 million BTU/hr

[22]for existing equipment for AQCR's I, II, V and VI
for the Baltimore AQCR and National Capital AQCR:
0.08 lbs/10^6 BTU for ≤200 million BTU/hr
0.05 lbs/10^6 BTU for >200 million BTU/hr

TABLE I - REGULATIONS APPLICABLE TO FUEL BURNING SOURCES (CONT'D)

[23] for solid fuel burning in National Capital and Baltimore AQCR's; 0.05 lbs Part/10^6 BTU for all solid fuel burning sources in the rest of the state; for residual oil burning sources >200 million BTU/hr heat input in National Capital and Baltimore AQCR's: 0.033 lbs Part/10^6 BTU if existing or modified, 0.016 lbs Part/10^6 BTU if new; for all residual oil sources in rest of state, 0.016 lbs Part/10^6 BTU.

[24] for state:

0.50 to 0.30 lbs/1000lbs gas for <120,000 lbs steam/hr	Pulverized Fuel Fired
0.18 lbs/1000lbs gas for >1,000,000 lbs steam/hr	
0.65 lbs/1000 lbs gas for <100,000 lbs steam/hr	Other Modes of Fuel Fired
0.65 to 0.45 lbs/1000lbs gas for <300,000 lbs steam/hr	
for ≥300,000 lbs steam/hr limit will be negotiated	

for Wayne County:

0.50 to 0.30 lbs/1000 lbs gas for <300,000 lbs steam/hr	Pulverized Fuel Fired
0.30 lbs/1000 lbs gas for ≥300,000 lbs steam/hr	
0.65 lbs/1000 lbs gas for <100,000 lbs steam/hr	Other Modes of Fuel Fired
0.65 to 0.45 lbs/1000 lbs gas for <300,000 lbs steam/hr	
0.45 to 0.30 lbs/1000 lbs gas for <800,000 lbs steam/hr	
0.30 lbs/1000 gas for ≥800,000 lbs steam/hr	

[25] for Minneapolis - St. Paul Metro Area and Duluth and all new installations; 0.6 lbs/10^6 BTU for existing installations outside the Minneapolis - St. Paul Metro Area and Duluth

[26] estimated from a diagram

[27] for Kansas City; 0.6 lbs/10^6 BTU max emissions for St. Louis and state of Missouri

[28] for existing equipment: for new equipment:

0.60 lbs/10^6 BTU for ≤10 million BTU/hr
0.35 lbs/10^6 BTU for 100 million BTU/hr
0.20 lbs/10^6 BTU for 1000 million BTU/hr
0.12 lbs/10^6 BTU for ≥10,000 million BTU/hr

[29] for existing equipment; for new equipment:

0.60 lbs/10^6 BTU for ≤10 million BTU/hr
0.40 lbs/10^6 BTU for 50 million BTU/hr
0.35 lbs/10^6 BTU for 100 million BTU/hr
0.23 lbs/10^6 BTU for 500 million BTU/hr
0.20 lbs/10^6 BTU for 1000 million BTU/hr
0.15 lbs/10^6 BTU for 2500 million BTU/hr
0.13 lbs/10^6 BTU for 5000 million BTU/hr
0.12 lbs/10^6 BTU for ≥7500 million BTU/hr

[30] after December 31, 1974 for coal burning equipment

TABLE I - REGULATIONS APPLICABLE TO FUEL BURNING SOURCES (CONC'D)

[31] New York - for sources burning coal and wood; 0.10 lbs 10^6 BTU for oil burning sources or new coal sources with >250 million BTU/hr heat input

[32] for priority I region only; for Priority II and III regions:
0.6 lbs/10^6 BTU for <10 million BTU/hr
0.2 lbs/10^6 BTU for 100 million BTU/hr
0.15 lbs/10^6 BTU for >1000 million BTU/hr

[33] for new sources only; 0.33 lbs/10^6 BTU for existing sources

[34] for <50 million BTU/hr

[35] for $A=3.6E^{-0.56}$ for <600 million BTU/hr; 0.1 lbs/10^6 BTU for ≥600 million BTU/hr

[36] same as process weight restrictions

[37] for existing sources

[38] for new and existing with <400 million BTU/hr capacity; for ≥400 million BTU/hr limitation is dependent on stack height

[39] for new sources; for existing sources: 0.6 lbs/10^6 BTU for ≤10 million BTU/hr
0.34 lbs/10^6 BTU for 100 million BTU/hr
0.18 lbs/10^6 BTU for 1000 million BTU/hr
0.10 lbs/10^6 BTU for ≥10,000 million BTU/hr

[40] 85% control for coal fired steam electric plants and for space heating

[41] for >300 million BTU/hr

[42] for >1000 million BTU/hr

[43] for <25 million BTU/hr

[44] for ≥25 million BTU/hr and ≤10,000 million BTU/hr:
$E=0.8425H^{-0.2314}$ where H = total heat in million BTU/hr

[45] for existing units; 0.17 for new sources and after July 1, 1975 for all sources

[46] for fuel burning unit used for generation of steam to produce electric power; 0.09 lbs/10^6 BTU for units such as industrial pulverized fuel fired furnaces, and cyclone furnaces; 0.166 lbs/10^6 BTU for handfired or stoker fired furnaces

[47] for new sources except in Milwaukee; 0.60 lbs/10^6 BTU for existing sources except in Milwaukee and Lake Michigan AQCR; 0.30 lbs/10^6 BTU for existing sources in Lake Michigan AQCR; 0.15 lbs/10^6 BTU for all sources in Milwaukee

[48] for existing equipment; 0.10 lbs/10^6 BTU for new equipment

TABLE II

REGULATIONS APPLICABLE TO INCINERATION SOURCES

—LBS PARTICULATE / 100 LBS REFUSE CHARGED—

	CAPACITY, LB/HR							
	<200	≥200	<2000	≥2000	<4000	≥4000	≥10,000	ALL
Alabama								0.20[1]
Alaska[2]	0.29	0.19		0.09[3]				
Arizona[4]								0.22
Arkansas	0.29	0.19						
California[5]								
Colorado	0.15	0.09						
Connecticut								0.08[6]
Delaware			0.20	0.18	0.16[7]			
Dist. of Col.								0.03[8]
Florida						0.08[9]		
Georgia					0.10[10]	0.08[10]		
Hawaii								0.20
Idaho								0.20
Illinois			0.09[11]	0.08[12]			0.05[13]	
Indiana			0.39[14]	0.23[12]				
Iowa								0.20
Kansas	0.29	0.19					0.09[15]	
Kentucky								0.19[16]
Louisiana								0.19
Maine					0.19	0.08		
Maryland[17]	0.25[18]	0.19[18]	0.09[19]	0.03[19]				
Massachusetts								0.09[20]
Michigan[21]								
Minnesota	0.30	0.20		0.10				
Mississippi								0.19[22]
Missouri[23]	0.29	0.19						
Montana	0.29	0.19						
Nebraska			0.19	0.09				
Nevada[24]								
N. Hampshire	0.29	0.19						
New Jersey			0.19	0.09				
New Mexico[25]								
New York								0.50[26]
N. Carolina	0.20			0.02				
N. Dakota[27]								
Ohio	0.20[28]		0.10[28]					
Oklahoma								0.40
Oregon	0.29[29]	0.19[29]						
Pennsylvania								0.09
Rhode Island			.15[30]	0.08[30]				
S. Carolina								31
S. Dakota								0.20
Tennessee			0.20[32]	0.10[32]				
Texas[33]								
Utah							34	
Vermont								0.10
Virginia								0.13
Washington								0.09[35]

TABLE II (CONT'D)

	<200	≥200	<2000	≥2000	<4000	≥4000	≥10,000	ALL
W. Virginia	0.41	0.27					0.13[36]	
Wisconsin[37]	0.17[38]				0.11	0.08		0.20
Wyoming					0.20	0.10		
Samoa								0.20
Guam					0.40			0.20
Puerto Rico								
Virgin Islands	0.29	0.19						

TABLE II - REGULATIONS APPLICABLE TO INCINERATION SOURCES (CONT'D)

[1]0.40 lbs/100 lbs refuse for wood waste burners

[2]for new installations only; 40% capacity for existing installations (more than 3 minutes in any hour)

[3]for >1000 lbs/hr capacity

[4] 0.09 lbs/100 lbs refuse for Maricopa County

[5]each county has its own regulation

[6]for new sources only; 0.23 lbs/100 lbs refuse for existing sources

[7]for ≤3000 lbs/hr capacity; no regulation stated for >3000 lbs/hr capacity

[8]for new sources only; 0.08 lbs/100 lbs refuse for existing sources

[9]for new sources only; after July 1, 1975 existing incinerators with charging rates of ≥4000 lbs/hr shall be restricted to emitting 0.09 lbs/100 lbs refuse

[10]for new incinerators; 0.19 for all existing incinerators

[11]for new incinerators only; 0.19 lbs/100 lbs refuse for existing incinerators

[12]for >1000 lbs/hr capacity

[13]for >60,000 lbs/hr capacity

[14]for ≤1000 lbs/hr capacity

[15]for>20,000 lbs/hr capacity

[16]for all existing sources and for new sources ≤4000 lbs/hr capacity; 0.08 lbs/100 lbs refuse for new sources >4000 lbs/hr capacity

[17]These regulations are for the following AQCR's: Eastern Shore, Md.; Southern Md.; Central Md.; and Cumberland, Md-Keyser, W. Va. The following regulations apply to the other two AQCR's: National Capital Interstate and Metropolitan Baltimore 0.03 lbs/100 lbs refuse for all incinerators after July 1, 1973

[18]for existing and modified incinerators only

[19]for new incinerators only

[20]for all existing incinerators and for new commercial, industrial, and residential incinerators; 0.05 lbs/100 lbs refuse for new municipal incinerators - these resulations apply to all 6 AQCR's

[21]for Michigan (including Wayne County) the following regulations apply:

	Rating in lbs/hr	lbs/1000 lbs Gas
Residential apartments	0-200	0.65
Residential apartments	200 and over	0.30
Commercial & Industrial	0-400	0.65
Commerical & industrial	400 and over	0.30
Municipal	All	0.30

TABLE II - REGULATIONS APPLICABLE TO INCINERATION SOURCES (CONT'D)

[22] for existing incinerators; 0.09 lbs/100 lbs refuse for new incinerators

[23] 0.19 lbs/100 lbs refuse for all incinerators in Kansas City

[24] cannot exceed 20% opacity for periods totaling one minute in any one hour

[25] state regulation not specified in final plan. Albuquerque regulation: 0.09 lbs/100 lbs refuse for existing incinerators; construction, use or operation of new incinerators is prohibited and after Jan 1, 1976 use or operation of any incinerator is prohibited

[26] for existing incinerators except in New York City, Nassau and Westchester Counties; for new and modified incinerators:

0.3 lbs/100 lbs refuse for ≤1000 lbs/hr capacity
0.22 lbs/100 lbs refuse for 10,000 lbs/hr capacity
0.13 lbs/100 lbs refuse for 100,000 lbs/hr capacity

for all incinerators in New York City, Nassau, and Westchester Counties:

0.2 lbs/100 lbs refuse for ≤1000 lbs/hr capacity
0.15 lbs/100 lbs refuse for 10,000 lbs/hr capacity
0.08 lbs/100 lbs refuse for 100,000 lbs/hr capacity

[27] for ≤1000 lbs/hr refuse burning rate $E=0.00515R^{0.90}$ and for >1000 lbs/hr refuse burning rate $E=0.025R^{0.67}$ where E=allowable emission rate in lbs/hr and R=refuse burning rate in lbs/hr

[28] for <100 and ≥100 lbs/hr capacity

[29] State regulations for existing sources; 0.09 lbs/100 lbs refuse for new sources; Regulations for Mid-Willamette Valley and Lane Regional:

0.19 lbs/100 lbs refuse for existing sources
0.09 lbs/100 lbs refuse for new sources

Regulations for Columbia-Willamette:
Depending on heat input rate
0.09-0.29 lbs/100 lbs refuse for existing sources
0.05-0.09 lbs/100 lbs refuse for new sources

[30] for new incinerators; applies to existing incinerators 3 years after effective data of regulation

[31] 0.5 lbs/10^6 BTU of heat input for new installations and for all incinerators by 1974; 0.75 lbs/10^6 BTU of heat input for existing incinerators

[32] for new incinerators only; 0.6 lbs/100 lbs refuse for existing incinerators with <200 lbs/hr capacity; 0.4 lbs/100 lbs refuse for existing incinerators ≥200 lbs/hr capacity

[33] no general regulation stated in the final plan

[34] 85% control

[35] for all incinerators after July 1, 1975; until then 0.19 lbs/100 lbs refuse for existing incinerators and 0.09 lbs/100 lbs refuse for new incinerators

[36] for >15,000 lbs/hr capacity

TABLE II - REGULATIONS APPLICABLE TO INCINERATION SOURCES (CONT'D)

[37] for new sources; 0.34 lbs/100 lbs refuse for existing sources ≤500 lbs/hr capacity and 0.27 lbs/100 lbs refuse for existing sources >500 lbs/hr capacity

[38] for ≤500 lbs/hr capacity

TABLE III
REGULATIONS APPLICABLE TO GENERAL PROCESS SOURCES
RATE OF ALLOWABLE EMISSION LBS PARTICULATE / HR

STATE	PROCESS WEIGHT RATE, LB/HR									
	100	1,000	5,000	10,000	20,000	40,000	60,000	120,000	200,000	1,000,000
Alabama[1]	0.56	2.34	6.33	9.76	14.97	-	29.83	33.33	36.17	46.79
Alaska[2]										
Arizona	0.55	2.58	7.58	12.00	19.20	-	40.00	46.30	51.20	69.00
Arkansas	0.55	2.25	6.34	9.73	14.99	-	29.60	33.28	36.11	46.72
California[3]										
Colorado	0.55	2.25	6.34	9.73	14.99	-	29.60	-	-	-
Connecticut	0.55	2.25	6.34	9.73	14.99	-	29.60	33.28	36.11	46.72
Delaware[4]										
Dist. of Col.	0.46	2.80	6.67	10.00	16.19	28.30	40.00	40.00	40.00	40.00
Florida	0.55	2.25	6.34	9.73	14.99	-	29.60	33.28	36.11	46.72
Georgia	0.55	2.58	7.58	12.00	19.20	30.50	40.00	68.50[5]	89.7[6]	262.00[7]
Hawaii	0.55	2.58	7.58	-	19.20	30.50	40.00	40.00	40.00	40.00
Idaho	0.55	2.58	7.58	12.00	19.20	30.50	40.00	46.30	51.20	69.00
Illinois[8]	0.55	1.75	-	6.00	8.70	12.50	15.60	-	29.30	70.00
Indiana	0.55	2.58	7.58	12.00	19.20	30.50	40.00	46.30	51.20	69.00
Iowa	0.55	2.58	7.58	12.00	19.20	30.50	40.00	46.30	51.20	69.00
Kansas	0.55	2.58	7.58	12.00	19.20	30.50	40.00	46.30	51.20	69.00
Kentucky	0.55	2.58	7.58	12.00	19.20	30.50	40.00	46.30	51.20	69.00
Louisiana	0.55	2.25	6.34	9.73	14.99	-	29.60	33.28	36.11	46.72
Maine	0.46	2.80	6.67	10.00	16.19	28.30	40.00	-	-	-
Maryland[9]	0.46	2.80	6.67	10.00	16.19	28.30	40.00	-	51.30	68.90
Massachusetts[10]	0.55	2.58	7.58	12.00	19.20	30.50	40.00	46.30	51.20	69.00
Michigan	0.55	2.58	7.58	12.00	19.20	30.50	40.00	46.30	51.20	69.00
Minnesota										

TABLE III (CONT'D)

STATE	PROCESS WEIGHT RATE, LB/HR									
	100	1,000	5,000	10,000	20,000	40,000	60,000	120,000	200,000	1,000,000
Mississippi	0.55	2.58	7.58	12.00	19.20	30.50	40.00	63.70	89.70	264.00
Missouri	0.55	2.58	7.58	12.00	19.20	30.50	40.00	46.30	51.20	69.00
Montana	0.55	2.58	7.58	12.00	19.20	30.50	40.00	46.30	51.20	69.00
Nebraska	0.55	2.25	6.34	9.73	14.99	-	29.60	33.28	36.11	46.72
Nevada	0.55	2.58	7.58	12.00	19.20	30.50	40.00	46.30	51.20	69.00
N. Hampshire[11]	0.55	2.58	7.58	12.00	19.20	-	40.00	46.30	51.20	69.00
New Jersey[12]										
New Mexico[13]	0.46	2.80	6.67	10.00	16.19	28.30	40.00	40.00	40.00	40.00
New York[14]	0.50	2.30	6.70	10.80	12.40	27.20	36.10	51.80	56.20	71.10
N. Carolina	0.55	2.58	7.58	12.00	19.20	30.50	40.00	46.30	51.20	69.00
N. Dakota	0.55	2.58	7.58	12.00	19.20	30.50	40.00	46.30	51.20	69.00
Ohio	0.55	2.58	7.58	12.00	19.20	30.50	40.00	46.30	51.20	69.00
Oklahoma	0.55	2.58	7.58	12.00	19.20	30.50	40.00	46.30	51.20	69.00
Oregon	0.46	2.80	6.67	10.00	16.19	28.30	40.00	46.30	51.20	69.00
Pennsylvania[15]										
Rhode Island	0.55	2.58	7.58	12.00	19.20	30.50	40.00	46.30	51.20	69.00
S. Carolina	0.55	2.58	7.58	12.00	19.20	30.50	40.00	46.30	51.20	69.00
S. Dakota	0.55	2.58	7.58	12.00	19.20	-	40.00	46.30	51.20	69.00
Tennessee[8]	0.55	2.34	6.34	9.70	15.00	23.00	29.60	33.30	36.10	46.70
Texas		1.60	7.70	15.20	30.10	59.70	67.40	-	95.20	123.90[16]
Utah[17]										
Vermont	0.46	2.80	6.67	10.00	16.19	28.30	40.00	40.00	40.00	40.00
Virginia	0.55	2.58	7.58	12.00	19.20	30.50	40.00	46.30	51.30	69.00
Washington[18]										

TABLE III (CONT'D)

STATE	PROCESS WEIGHT RATE, LB/HR									
	100	1,000	5,000	10,000	20,000	40,000	60,000	120,000	200,000	1,000,000
W. Virginia[18]	0.55	2.25	6.34	9.73	14.99	-	29.60	33.28	36.11	46.72
Wisconsin[19]	0.55	2.25	6.34	9.73	14.99	-	29.60	33.28	36.11	46.72
Wyoming[8]	0.46	2.80	6.67	10.00	16.19	28.30	40.00	40.00	40.00	40.00
Samoa	0.46	2.80	6.67	10.00	16.19	28.30	40.00	-	-	-
Guam	0.55	2.25	6.34	9.73	16.00	-	40.00	46.00	51.00	69.00
Puerto Rico[20]	0.55	2.58	7.58	12.00	19.20	30.50	40.00	46.30	-	69.00
Virgin Islands[21]										

TABLE III - REGULATIONS APPLICABLE TO GENERAL PROCESS SOURCES (CONT'D)

[1]for Class I counties only
for Class II counties:

0.55	for 100 lbs/hr
2.57	for 1000 lbs/hr
7.57	for 5000 lbs/hr
12.05	for 10,000 lbs/hr
19.18	for 20,000 lbs/hr
39.96	for 60,000 lbs/hr
46.30	for 120,000 lbs/hr
51.28	for 200,000 lbs/hr
68.96	for 1,000,000 lbs/hr

[2]0.05 gr/scfm for new plants; 0.10 gr/scfm for existing plants

[3]each county has its own regulation.

[4]general restriction is 0.2 gr/cu.ft.

[5]for existing plants only, 46.3 lbs Particulate/hr for new plants

[6]for existing plants only; 51.2 lbs Particulate/hr for new plants

[7]for existing plants only. 69.0 lbs Particulate/hr for new plants

[8]for new plants only; existing plants =

0.55	for 100 lbs/hr
2.58	for 1000 lbs/hr
7.58	for 5000 lbs/hr
12.00	for 10,000 lbs/hr
19.20	for 20,000 lbs/hr
30.50	for 40,000 lbs/hr
40.00	for 60,000 lbs/hr
46.30	for 120,000 lbs/hr
51.20	for 200,000 lbs/hr
69.00	for 1,000,000 lbs/hr

[9] for >60,000 lbs/hr for Cumberland-Keyser, Eastern Shore, Central Md., and Southern, Md. AQCR's, $E = 55.0\ p^{0.11-40}$

[10]for existing installations only; for new installations and installations in critical areas:

0.23	for 100 lbs/hr
1.40	for 1000 lbs/hr
3.39	for 5000 lbs/hr
5.00	for 10,000 lbs/hr
8.10	for 20,000 lbs/hr
14.15	for 40,000 lbs/hr
20.00	for 60,000 lbs/hr
25.70	for 200,000 lbs/hr
34.50	for 1,000,000 lbs/hr

TABLE III - REGULATIONS APPLICABLE TO GENERAL PROCESS SOURCES (CONT'D)

[11] for new plants; for existing plants:

0.68 for 100 lbs/hr
3.17 for 1000 lbs/hr
9.35 for 5000 lbs/hr
14.85 for 10,000 lbs/hr
23.62 for 20,000 lbs/hr
49.31 for 60,000 lbs/hr
55.55 for 120,000 lbs/hr
61.53 for 200,000 lbs/hr
82.75 for 1,000,000 lbs/hr

[12] Maximum Allowable Emission Rate for Particles

Potential Emission Rate from Source Operation (lbs/hr)	Allowable Emission Rate (Based on 99% efficiency of collection) (lbs/hr)	Source Gas Emitted from Source Operation (Std. cu.ft./min.)	Allowable Emission Rate (Based on 0.02 gr/scf) (lbs/hr)
50 or less	0.5		
100	1.0	3000 or less	0.5
1000	10.0	70,000	12.0
3000 or greater	30.0	175,000 or greater	30.0

[13] for Albuquerque-Bernalillo Co. - state did not include a general process curve

[14] applies to sources with an environmental rating of B or C. Emissions from source with A or D rating are at discretion of the Dept. of Environmental Conservation

[15] if E <150,000 dry standard cubic ft/min, emissions should not exceed 0.04 gr/dry standard cubic ft.
if 150,000≤ E < 300,000 dry standard cubic ft/min. $A = 6000E^{-1}$
if E >300,000 dry standard cubic ft/min, emissions should not exceed 0.02 gr/dry standard cubic ft.

[16] for 500,000 lbs/hr

[17] maintain a minimum of 85% control of particulate emissions

[18] state did not include a general process curve

[19] for new sources only

[20] except where source cannot practicably apply, then emissions in any one hour cannot exceed 0.02 lbs for each pound of process weight

[21] these values may be exceeded for those processes whose weight exceeds 200 tons/hr, provided that the concentration of particulate matter in the discharge gases is less than 0.10 lbs/1000 lbs gas.

TABLE IV

REGULATIONS APPLICABLE TO ALUMINUM PROCESSES
RATE ALLOWABLE EMISSIONS LBS PART/HR

STATE	PROCESS WEIGHT (LBS/HR)						REGULATION
	1000	5000	10,000	20,000	40,000	50,000	
Delaware[1]	0.75	3.75	7.50	15.00	30.00	37.50	
Oregon[2]							Visible emissions may not exceed 20% opacity
Pennsylvania Sweating Melting & Refining							Not in excess of 0.02 gr/scf or $A=0.76(F \times W)^{.42}$ where A = allowable emission in lbs/hr W = charging rate in units/hr F = process factor in lbs/unit as shown below F = 50 lbs/ton of aluminum product F = 10 lbs/ton of aluminum feed
Virginia[1]	3.05	9.05	16.65	24.00	36.00	42.00	
Washington[2]							Total particulate emissions may not exceed on a daily basis 15 lbs/ton of aluminum

[1] also applies to secondary brass and steel operations as well as to secondary aluminum

[2] for primary aluminum plants

TABLE V

REGULATIONS APPLICABLE TO GRAY IRON FOUNDRIES

RATE OF ALLOWABLE EMISSION LBS PARTICULATE/HR

STATE	PROCESS WEIGHT (LBS/HR) 1000	5000	10,000	20,000	40,000	50,000	REGULATION
Alabama	3.05	9.58	16.65	25.10	37.00	42.40	
Connecticut Iron Cupolas							Remove 85% by weight of all particulate matter in discharge gases or release not more than 0.8 lbs Part/1000 lbs discharge gas.
Foundry sand							No particulate emissions such as to cause a nuisance and at least 90% collection efficiency for fugitive dust.
Georgia if >50,000 lbs/hr input	2.58	7.58	12.00	19.20	30.50	35.40	
if ≤50,000 lbs/hr input	3.05	9.58	16.65	25.10	33.76	35.40	
Indiana new foundries	2.58	7.58	12.00	19.20	30.20	35.40	
existing fnds.	3.05	9.65	16.65	24.00	36.00	42.00	
Iowa[1]	3.05	9.58	16.65	25.10	-	-	
Massachusetts Production foundry							0.10 lbs Part/1000 lbs gas for new foundries and existing foundries in critical areas 0.25 lbs/1000 lbs gas for existing foundries
Jobbing foundry							0.40 lbs Part/1000 lbs gas
Michigan Product. foundry							0.40 lbs Part/1000 lbs gas for 0-10 tons/hr plant capacity
							0.25 lbs Part/1000 lbs gas for 11-20 tons/hr plant capacity
							0.15 lbs Part/1000 lbs gas for ≥21 tons/hr plant capacity
Jobbing Foundry							0.40 lbs Part/1000 lbs gas
Minnesota[2]							Remove 85% by weight of all particulate matter in discharge gases or release not more than 0.4 gr Part/scf of gas.
Missouri[2]							Remove 85% by weight of all particulate matter in discharge gases or release not more than 0.4 gr. Part/scf of gas.
New Hampshire new foundries	2.58	7.58	12.00	19.20	-	-	
existing found.	3.17	9.35	14.85	23.62	-	-	
New York[3]	3.05	9.58	16.65	25.10	37.00	42.40	
North Car.[4]	3.05	9.58	16.65	25.10	37.00	-	
Oklahoma Tulsa							0.40 gr/scf of exhaust gas or must be equipped with control equipment which would collect not less than 85% of the particulate matter entering the device.
Tennessee[2]	3.05	9.58	16.65	25.10	-	-	
W. Virginia	-	13.00	19.00	26.00	36.00	40.00	
Wisconsin Cupolas							0.45 lbs dust/1000 lbs gas
Sintering							0.2 lbs dust/1000 lbs gas

[1] for all existing foundry cupolas with a process weight ≤20,000 lbs/hr; foundry cupolas >20,000 lbs/hr may not exceed general process weight rates.

[2] for all existing jobbing cupolas

[3] for all jobbing foundries after January 1, 1971.

[4] proposed for existing jobbing foundries.

TABLE VI
REGULATIONS APPLICABLE TO IRON AND STEEL PROCESSES
RATE OF ALLOWABLE EMISSION LBS PARTICULATE/HR

STATE	PROCESS WEIGHT (LB/HR) 1000	5000	10,000	20,000	40,000	50,000	REGULATION
Illinois Sinter Process a) Breaker stack b) main windbox	1.75	-	6.00	8.70	12.50	14.00	1.2 times allowable emission rates for Breaker stacks
Iowa Metallurgical melting a) cupolas[1] b) elec. furnaces	2.58	7.58	12.00	19.20	30.50	35.40	Shall not exceed 0.1 gr/scf of exhaust gas
Michigan Open hearth fur. Basic Oxygen fur. Electric furnaces Sintering plants Blast furnaces Heating & reheating furnaces							0.15 lbs Part/1000 lbs gas 0.15 lbs Part/1000 lbs gas 0.15 lbs Part/1000 lbs gas 0.20 lbs Part/1000 lbs gas 0.15 lbs Part/1000 lbs gas 0.15 lbs Part/1000 lbs gas 0.30 lbs Part/1000 lbs gas
New Hampshire new furnaces existing furnaces	2.58 3.17	7.58 9.35	12.00 14.85	19.20 23.62	- -	- -	
Pennsylvania Iron Production Sintering-Windbox Steel Production Scarfing							not in excess of 0.02 gr/scf or $A=0.76\ (F \times W)^{.42}$ where A = allowable emissions in lbs/hr F = process factor in lbs/unit as shown below W = changing rate in units/hr F = 100 lbs/ton of product F = 20 lbs/ton of dry solids feed F = 40 lbs/ton of product F = 20 lbs/ton of product
Wisconsin Electric furnaces Open Hearth Fur. Basic Oxygen Fur. Blast Furnaces Heating & Pre-heating furnaces							0.10 lbs dust/1000 lbs gas 0.20 lbs dust/1000 lbs gas 0.10 lbs dust/1000 lbs gas 0.20 lbs dust/1000 lbs gas 0.30 lbs dust/1000 lbs gas

[1] for all new foundry cupolas and all existing foundry cupolas with a process weight >20,000 lbs/hour

TABLE VII

PARTICULATE REGULATIONS APPLICABLE TO ASPHALT BATCHING
ALLOWABLE EMISSIONS IN LBS PARTICULATE/HOUR

	PROCESS WEIGHT RATE (LBS/HR)								REMARKS
	10,000	20,000	50,000	100,000	200,000	300,000	500,000	≥600,000	
ARKANSAS									ASPHALT MIX PLANT EQUIPMENT MAY NOT EMIT IN EXCESS OF 1000 LBS/DAY OR 100 LBS/HR; MUST BE LOCATED SO AS NOT TO CAUSE A CONDITION OF AIR POLLUTION OR A NUISANCE.
CONNECTICUT									NO EMISSIONS OF PARTICULATE MATTER IN EXCESS OF 0.3 LBS/1000 LBS OF DISCHARGE GAS; MUST NOT EMIT PARTICULATE MATTER INTO THE OPEN AIR SO AS TO CAUSE A NUISANCE.
DELAWARE	10	16	31	33	37	40	47	50	
IDAHO PERMANENT LOCATIONS TEMPORARY LOCATIONS	12.0	19.2	35.4	44.6	51.2				IF MORE THAN ONE STACK, THE EMISSION LIMITATION WILL BE BASED ON THE TOTAL EMISSIONS FROM ALL STACKS. MUST HAVE A PARTICULATE COLLECTION SYSTEM WITH AN EFFICIENCY OF AT LEAST 80%, AND MUST NOT EXCEED THE EMISSION LIMITATIONS FOR PERMANENT LOCATIONS.
IOWA									PARTICULATE MATTER DISCHARGED TO THE ATMOSPHERE SHALL NOT EXCEED 0.15 GR/SCF OF EXHAUST GAS
MASSACHUSETTS EXISTING PLANTS NEW PLANTS					9.0 4.5	13.44 6.7	22.6 11.3	28.3 14.2	

TABLE VII (CONT'D)

PARTICULATE REGULATIONS APPLICABLE TO ASPHALT BATCHING (CONTINUED)

	PROCESS WEIGHT RATE (LB/HR)								REMARKS
	10,000	20,000	50,000	100,000	200,000	300,000	500,000	≥600,000	
MICHIGAN STATIONARY PORTABLE IN REMOTE LOCATION WAYNE COUNTY COMBUSTION PROCESSES NON-COMBUSTION PROCESSES									PARTICULATE EMISSIONS SHALL NOT EXCEED 0.30 LBS/1000 LBS GAS. PLANT CAPACITY (TONS/HR) — EMISSION LIMITATION LBS/1000 LBS GAS 1-100 — 0.60 101-150 — 0.50 151-200 — 0.45 200 AND OVER — 0.35 PARTICULATE EMISSIONS SHALL NOT EXCEED 0.65 LBS/1000 LBS GAS @ 150% TOTAL AIR. PARTICULATE EMISSIONS SHALL NOT EXCEED 0.65 LBS/1000 LBS GAS.
NEW HAMPSHIRE	10	16	31	33	37	40	47	47	IF PLANT IS EQUIPPED WITH MORE THAN ONE STACK, THE EMISSION RATE WILL BE BASED ON THE TOTAL EMISSIONS FROM ALL STACKS. MUST HAVE A FUGITIVE DUST CONTROL SYSTEM. DURING OPERATION VISIBLE EMISSION SHALL NOT EXCEED 20% OPACITY.
NEW MEXICO	10	15	31	33	37	40	47	50	IF MORE THAN ONE STACK, THE MAXIMUM STACK EMISSION RATE APPLIES TO THE TOTAL OF THE EMISSIONS FROM ALL STACKS. IF PLANT HAS MORE THAN ONE EMISSION POINT, THE EMISSION TOTAL IS THAT FROM ALL EMISSION POINTS.
ALBUQUERQUE	10	15	31 at 60,000 LB/HR	33	37	40	40	40	

TABLE VII (CONT'D)

PARTICULATE REGULATIONS APPLICABLE TO ASPHALT BATCHING (CONTINUED)

	PROCESS WEIGHT RATE (LBS/HR)								REMARKS
	10,000	20,000	50,000	100,000	200,000	300,000	500,000	≥600,000	
NORTH CAROLINA	10	13	20	27	37	42	52	60	ALL HOT MIX ASPHALT PLANTS SHALL BE EQUIPPED WITH A FUGITIVE DUST CONTROL SYSTEM.
OKLAHOMA OKLAHOMA CITY	10	16	31	33	37	40	47	50	MUST BE EQUIPPED WITH A FUGITIVE DUST CONTROL SYSTEM.
OREGON SPECIAL CONTROL AREAS	10	16.19	34.3	40.0	40.0	40.0	40.0	40.0	ALL DUSTS AND GASEOUS EFFLUENTS COLLECTED FROM THE PLANT MUST BE SUBJECTED TO AIR CLEANING DEVICES HAVING A PARTICULATE COLLECTION EFFICIENCY OF 80% BY WEIGHT.
PENNSYLVANIA									NOT IN EXCESS OF 0.02 GR/SCF OR $A = 0.76\ (FXW)^{.42}$ WHERE A = ALLOWABLE EMISSIONS IN LBS/HR W = CHARGING RATE IN UNITS/HR F = 3 LBS/TON OF AGGREGATE FEED
SOUTH CAROLINA EXISTING PLANTS NEW PLANTS			30 AT 40,000 22 AT 40,000	45 31	57 38	67 45			FOR ALL PLANTS AFTER JULY 1, 1977 - MUST BE EQUIPPED WITH A FUGITIVE DUST CONTROL SYSTEM WHICH WILL REDUCE TO A MINIMUM THE EMISSION OF PARTICULATE MATTER FROM ANY POINT OTHER THAN THE STACK OUTLET.

TABLE VII (CONCLUDED)

PARTICULATE REGULATIONS APPLICABLE TO ASPHALT BATCHING (CONCLUDED)

	PROCESS WEIGHT RATE (LBS/HR)								REMARKS
	10,000	20,000	50,000	100,000	200,000	300,000	500,000	≥600,000	
VIRGINIA	10	16	31	33	37	40	47	50	
WASHINGTON									ALL ASPHALT BATCH PLANTS SHALL UTILIZE BEST PRACTICAL TECHNOLOGY AND SHALL BE MAINTAINED AND OPERATED TO MINIMIZE EMISSIONS. EMISSIONS MAY NOT EXCEED 40 LBS OF PARTICULATE/HR.
WEST VIRGINIA	10	16	31	33	37	40	47	50	VISIBLE EMISSIONS LIMITED TO 20% OPACITY. IF MORE THAN ONE STACK TO A PLANT, THE EMISSION LIMITATIONS WILL BE BASED ON THE TOTAL EMISSIONS FROM ALL STACKS. PLANTS MUST BE EQUIPPED WITH FUGITIVE DUST CONTROLS.
WISCONSIN									EMISSIONS SHALL NOT EXCEED 0.3 LBS DUST/1000 LBS OF GAS.
VIRGIN ISLANDS	10	16	31	33	37	40	47	50	IF PLANT HAS MORE THAN 1 STACK, THE EMISSION TOTAL IS THAT FROM ALL STACKS. PLANTS MUST HAVE FUGITIVE DUST CONTROL SYSTEMS.

TABLE VIII

PARTICULATE REGULATIONS APPLICABLE TO CONCRETE BATCHING
ALLOWABLE EMISSIONS IN LBS PARTICULATE/HOUR

	PROCESS WEIGHT RATE (LBS/HR)										REMARKS
	100	1000	5000	10,000	20,000	40,000	60,000	120,000	200,000	1,000,000	
CONNECTICUT											PROCESS MUST NOT EMIT PARTICULATE MATTER INTO THE OPEN AIR SO AS TO CAUSE A NUISANCE; MUST BE EQUIPPED WITH FUGITIVE DUST CONTROL FACILITIES HAVING A COLLECTION EFFICIENCY OF 90% OR 0.02 LBS/YD^3 OF CONCRETE, WHICHEVER RESULTS IN LESS EMISSION.
FLORIDA PORTLAND CEMENT	0.55	2.25	6.34	9.73	14.99	-	29.60	33.28	36.11	46.72	APPLIED TO EACH INDIVIDUAL SOURCE RATHER THAN APPLIED ON THE BASIS OF MASS EMISSION LIMITATIONS.
ILLINOIS PORTLAND CEMENT											FOR NEW SOURCES >250 MILLION BTU/HR VISIBLE EMISSION SHALL NOT EXCEED 10% OPACITY. PARTICULATE EMISSIONS SHALL NOT BE ALLOWED INTO THE ATMOSPHERE FROM FEED TO KILN. PARTICULATE EMISSIONS INTO THE ATMOSPHERE FROM ANY CLINKER COOLER SHALL NOT EXCEED 0.1 LBS/TON OF FEED TO THE KILN.
INDIANA											EXISTING CEMENT MANUFACTURING OPERATIONS EQUIPPED WITH ELECTROSTATIC PRECIPITATORS, BAG FILTERS, OR EQUIVALENT GAS-CLEANING DEVICES SHALL BE ALLOWED TO DISCHARGE PARTICULATES ACCORDING TO $E = 8.6\ P^{0.67}$ FOR P < 30 TONS/HR $E = 15.0\ P^{0.5}$ FOR P > 30 TONS/HR
IOWA CEMENT KILNS PORTLAND CEMENT											SHALL BE EQUIPPED WITH AIR POLLUTION CONTROL DEVICES TO REDUCE PARTICULATE EMISSIONS TO NO MORE THAN 0.3% OF THE PARTICULATE MATTER ENTERING THE CONTROL DEVICE. REGARDLESS OF THE EFFICIENCY, PARTICULATE EMISSIONS SHALL NOT EXCEED 0.1 GR/SCF OF EXHAUST GAS. PORTLAND CEMENT CONCRETE BATCHING PLANTS SHALL NOT DISCHARGE PARTICULATE MATTER IN EXCESS OF 0.1 GR/SCF OF EXHAUST GAS.
MARYLAND BITUMINOUS CONCRETE											FOR EXISTING AND MODIFIED INSTALLATIONS LOCATED IN THE FOLLOWING AQCR'S: CUMBERLAND-KEYSER, SOUTHERN MD., CENTRAL MARYLAND, EASTERN SHORE, PARTICULATE EMISSIONS SHALL NOT EXCEED 0.03 GR/SCF OF EXHAUST GAS.
MICHIGAN KILN CLINKER COOLERS GRINDING, CRUSHING, AND OTHER HANDLING											PARTICULATE EMISSIONS SHALL NOT EXCEED 0.25 LBS/1000 LBS GAS. PARTICULATE EMISSIONS SHALL NOT EXCEED 0.30 LBS/1000 LBS GAS. PARTICULATE EMISSIONS SHALL NOT EXCEED 0.15 LBS/1000 LBS GAS. THE ABOVE APPLY TO KILNS WITH CAPACITY >15,000 BARRELS OF CEMENT PER DAY.

TABLE VIII (CONCLUDED)

PARTICULATE REGULATIONS APPLICABLE TO CONCRETE BATCHING
ALLOWABLE EMISSIONS IN LBS PARTICULATE/HOUR

	PROCESS WEIGHT RATE (LBS/HR)										
	100	1000	5000	10,000	20,000	40,000	60,000	120,000	200,000	1,000,000	REMARKS
NEW HAMPSHIRE											VISIBLE EMISSIONS SHALL NOT EXCEED 20% OPACITY
NEW MEXICO											CEMENT KILNS SHALL NOT EMIT PARTICULATE MATTER IN EXCESS OF 230 MG/N^3 OF EXHAUST GAS
NEW YORK							94 AT 50,000 LBS/PR	134 AT 100,000 LBS/HR	190	284 AT 450,000 LBS/HR	
NORTH CAROLINA											CEMENT KILNS SHALL BE EQUIPPED WITH GAS CLEANING DEVICES TO REDUCE PARTICULATE MATTER ENTERING THE DEVICE BY NOT LESS THAN 99.7%. PARTICULATE MATTER DISCHARGED TO THE ATMOSPHERE SHALL NOT EXCEED 0.327 LBS/BARREL.
PENNSYLVANIA CLINKER PRODUCTION CLINKER COOLING											NOT IN EXCESS OF 0.02 GR/SCF OR $A = 0.76\ (FXW)^{.62}$ WHERE A = ALLOWABLE EMISSIONS IN LBS/HR W = CHARGING RATE IN UNITS/HR F = PROCESS WEIGHT FACTOR IN LBS/UNIT AS SHOWN BELOW F = 150 LBS/TON OF DRY SOLIDS FEED F = 50 LBS/TON OF PRODUCT
SOUTH CAPOLINA					14	22	29	42	47		
VIRGINIA	0.55	2.58	7.58	12.0	19.2	30.5	40.0	46.3	51.3	69.0	
WISCONSIN NEW CEMENT KILNS NEW CLINKER COOLERS EXISTING CEMENT KILNS EXISTING CLINKER COOLERS											0.30 LBS/TON OF FEED TO KILN 0.10 LBS/TON OF FEED TO KILN 0.20 LBS/1000 LBS OF GAS 0.30 LBS/1000 LBS OF GAS

TABLE IX

PARTICULATE REGULATIONS APPLICABLE TO FEED AND GRAIN PROCESSING
ALLOWABLE EMISSIONS IN LBS PARTICULATE/HOUR

	PROCESS WEIGHT RATE (LBS/HR)								REMARKS
	100	1,000	10,000	20,000	40,000	60,000	200,000	1,000,000	
ILLINOIS CORN WET MILLING									EMISSION OF PARTICULATE MATTER NOT TO EXCEED 0.3 GRAINS/SCF OF EFFLUENT GASES
NEW SOURCES	0.55	1.75	6.00	8.70	12.50	15.60	29.50	70.00	ON AND AFTER DECEMBER 31, 1973
EXISTING SOURCES	0.55	2.58	12.00	19.20	30.50	40.00	51.20	69.00	ON AND AFTER DECEMBER 31, 1973
IOWA FEED GRINDING & MIXING PLANTS (FOR ANIMAL FOOD)									A PERMANENT INSTALLATION FOR THE HANDLING, DRYING, GRINDING, MIXING, OR PROCESSING OF GRAIN, OR BLENDING OF GRAIN PRODUCTS, SHALL NOT DISCHARGE PARTICULATE MATTER TO EXCEED 0.1 GR/SCF OF EXHAUST GAS.
GRAIN PROCESSING PLANTS (FOR HUMAN FOOD)									EQUIPMENT FOR HANDLING, DRYING, GRINDING, MIXING, OR PROCESSING GRAIN, OR BLENDING OF GRAIN PRODUCTS, SHALL NOT DISCHARGE PARTICULATE MATTER TO EXCEED 0.1 GR/SCF OF EXHAUST GAS.
MARYLAND GRAIN DRYING									GRAIN DRYING INSTALLATIONS MUST BE EQUIPPED SO THAT ALL EXHAUST GASES DISCHARGED PASS THROUGH A 50-MESH SCREEN, OR MUST BE EQUIPPED WITH OTHER EQUIPMENT OR DESIGN FEATURES THAT WILL ACCOMPLISH THE SAME OR MORE EFFECTIVE RESULTS IN REDUCING PARTICULATE EMISSIONS. THIS REGULATION DOES NOT APPLY TO MOBILE SOURCES.

TABLE IX (CONCLUDED)

PARTICULATE REGULATIONS APPLICABLE TO FEED AND GRAIN PROCESSING (CONCLUDED)
ALLOWABLE EMISSIONS IN LBS PARTICULATE/HOUR

	PROCESS WEIGHT RATE (LBS/HR)								REMARKS
	100	1,000	10,000	20,000	40,000	60,000	200,000	1,000,000	
PENNSYLVANIA LOADING & UNLOADING OF GRAIN ELEVATORS GRAIN SCREENING AND CLEANING GRAIN DRYING									NOT IN EXCESS OF 0.02 GR/SCF OR $A = 0.76\ (FXW)^{.62}$ WHERE A = ALLOWABLE EMISSIONS IN LBS/HR. W = CHARGING RATE IN UNITS/HR. F = PROCESS WEIGHT FACTOR IN LBS/UNIT AS SHOWN BELOW F = 90 LBS/TON OF GRAIN F = 300 LBS/TON OF GRAIN F = 200 LBS/TON OF PRODUCT
VIRGINIA									FOR OPERATIONS INVOLVING PHYSICALLY CONNECTED DISSIMILAR PROCESSES, THE PROCESS WEIGHT RATE ENTRY SHALL BE THE SUM OF THE PROCESS WEIGHT RATES OF EACH DISSIMILAR PROCESS, BUT MATERIALS HANDLING EQUIPMENT SHALL NOT BE CONSIDERED PROCESSES.
WASHINGTON GRAIN ELEVATORS									EMISSIONS MAY NOT EXCEED 40 LBS PART/HR AND MAY NOT INTERFERE UNREASONABLY WITH THE USE AND ENJOYMENT OF OTHERS' PROPERTY UPON WHICH THE MATERIAL MAY BECOME DEPOSITED. ADDITIONAL REQUIREMENTS MAY BE ESTABLISHED FOR ELEVATORS LOCATED IN SENSITIVE AREAS.
WISCONSIN PROCESSING OR HANDLING									EMISSIONS SHALL NOT EXCEED 0.4 LBS DUST/1000 LBS OF GAS.

TABLE X

PARTICULATE REGULATIONS APPLICABLE TO SECONDARY NON-FERROUS OPERATIONS
ALLOWABLE EMISSIONS IN LBS PARTICULATE/HOUR

	PROCESS WEIGHT RATE (LBS/HR)							REMARKS
	1000	10,000	20,000	40,000	50,000	200,000	1,000,000	
DELAWARE - Al	0.75	7.50	15.00	30.00	37.50	-	-	
MASSACHUSETTS Al, Pb, Zn, Cu								0.10 LBS PART/1000 LBS GAS FOR NEW NON-FERROUS FOUNDRIES. 0.15 LBS PART/1000 LBS GAS FOR EXISTING NON-FERROUS FOUNDRIES.
NEW HAMPSHIRE Al, Pb, Zn, Cu NEW INSTALLATIONS	2.58	12.00	19.20	-	40.0 FOR 60,000	51.20	69.0	
EXISTING INSTALLATIONS	3.17	14.85	23.62	-	49.31 FOR 60,000	61.53	82.75	
PENNSYLVANIA Al SWEATING Al MELTING & REFINING Pb SMELTING Zn SWEATING Zn REFINING								WHICHEVER IS MORE RESTRICTIVE, 0.02 GR/SCF GR $A = 0.76\ (FXW)^{0.42}$ WHERE A = ALLOWABLE EMISSIONS IN LBS/HR W = CHARGING RATE IN UNITS/HR F = PROCESS FACTORS AS BELOW F = 50 LBS/TON OF Al PRODUCT F = 10 LBS/TON OF Al FEED F = 0.5 LBS/TON OF PRODUCT F = 0.01 LBS/TON OF PRODUCT F = 0.3 LBS/TON OF PRODUCT

TABLE XI

PARTICULATE REGULATIONS APPLICABLE TO PHOSPHATE FERTILIZER OPERATIONS
ALLOWABLE EMISSIONS IN LBS PARTICULATE/HOUR

	PROCESS WEIGHT RATE (LBS/HR)								REMARKS
	5,000	10,000	15,000	20,000	25,000	50,000	75,000	100,000	
DELAWARE PRILLING PRILLING	25 5	50 10	75 15	100 20	125 25	250 50	375 75	500 100	REGULATION APPLIES AFTER JANUARY 1, 1975 ONLY IF BETWEEN JULY 1, 1973 AND OCTOBER 1, 1974. THE SECONDARY AMBIENT AIR QUALITY STANDARD IS EXCEEDED IN METROPOLITAN PHILADELPHIA AQCR DUE TO PRILLING OPERATIONS LOCATED IN NEW CASTLE CO.
NORTH CAROLINA				19		23 AT 40,000 LBS/HR	29 AT 80,000 LBS/HR	31	THE PROCESS-WEIGHT RATE FOR CHEMICAL FERTILIZER MANUFACTURING OPERATIONS SHALL BE THE SUM OF PRODUCTION RATE AND RECYCLE RATE.
PENNSYLVANIA									NOT IN EXCESS OF 0.02 GR/SCF OR $A = 0.76 (FW)^{.42}$ WHERE A = ALLOWABLE EMISSIONS IN LBS/HR W = CHARGING RATE IN UNITS/HR F = 6 LBS/TON OF PHOSPHOROUS BURNED
VIRGINIA					19.2 AT 30,000	30.5 AT 60,000		42.5 AT 120,000	

TABLE XII

PARTICULATE REGULATIONS APPLICABLE TO PETROLEUM REFINING OPERATIONS
ALLOWABLE EMISSIONS IN LBS PARTICULATE/HOUR

	PROCESS WEIGHT RATE (LBS/HR)							
	7,000	14,000	21,000	28,000	42,000	56,000	70,000	REMARKS
DELAWARE CATALYTIC CRACKING	50	100	150	200	300	400	500	
CATALYTIC CRACKING	5	10	15	20	30	40	50	REGULATION APPLIES AFTER JANUARY 1, 1975 ONLY IF BETWEEN JULY 1, 1973 AND OCTOBER 1, 1974. THE NATIONAL SECONDARY AIR QUALITY STANDARD IS EXCEEDED IN METRO. PHILADELPHIA AQCR DUE TO A CATALYTIC CRACKING OPERATION IN NEW CASTLE CO.
FLUID COKING	15 AT 5,000	50 AT 15,000	70 AT 15,000		125 AT 40,000	150 AT 50,000		
ILLINOIS CATALYST REGENERATORS								EMISSION RATE SHALL NOT EXCEED 100 LBS OF PARTICULATE/HOUR. ALLOWABLE RATE SHALL BE DETERMINED BY: $E = 4.10(P)^{0.67}$ FOR $P \leq 30$ TONS/HOUR $E = (55(P)^{0.11}) - 40.0$ FOR $30 < P < 4800$ TONS/HOUR $E = 100.0$ FOR $P \geq 4800$ TONS/HOUR WHERE E = ALLOWABLE EMISSION RATE IN LBS/HR AND P = CATALYST RECYCLE RATE INCLUDING THE AMOUNT OF FRESH CATALYST ADDED IN TONS/HR.
INDIANA CATALYTIC CRACKING								UNITS EQUIPPED WITH CYCLONE SEPARATORS, ELECTROSTATIC PRECIPITATORS, OR OTHER GAS-CLEANING SYSTEMS SHALL RECOVER 99.97% OR MORE OF THE CIRCULATING CATALYST OR TOTAL GAS-BORNE PARTICULATE.
PENNSYLVANIA CATALYTIC CRACKING								NOT IN EXCESS OF 0.02 GR/SCF OR $A = 0.76\ (FW)^{.42}$ WHERE A = ALLOWABLE EMISSIONS IN LBS/HR. W = CHARGING RATE IN UNITS/HR. F = 40 LBS/TON OF LIQUID FEED.
VIRGINIA CATALYTIC CRACKING								EMISSIONS MAY NOT EXCEED 0.05% OF THE RATE OF CATALYST RECIRCULATION WITHIN THE UNIT.
WASHINGTON CATALYTIC CRACKING								EMISSIONS MAY NOT EXCEED 40 LBS PART/HR AND MAY NOT INTERFERE UNREASONABLY WITH THE USE AND ENJOYMENT OF OTHERS' PROPERTY UPON WHICH THE MATERIAL MAY BECOME DEPOSITED.

TABLE XIII

PARTICULATE REGULATIONS APPLICABLE TO COAL CLEANING PROCESSES

	REGULATION
PENNSYLVANIA	NOT IN EXCESS OF 0.02 GR/SCF OR $A = 0.76\ (FXW)^{.42}$ WHERE A = ALLOWABLE EMISSIONS IN LBS/HR W = CHARGING RATE IN UNITS/HR F = PROCESS WEIGHT FACTOR IN LBS/UNIT AS SHOWN BELOW
COAL DRYING	F = 2 LBS/TON OF PRODUCT
COAL DRY-CLEANING	F = 2 LBS/TON OF PRODUCT
VIRGINIA	
THERMAL DRYING	FOR ≤ 100 TONS/HR ALLOWABLE EMISSIONS SHALL BE 45 LBS PART/HR. FOR ≥ 200 TONS/HR ALLOWABLE EMISSIONS SHALL BE 105 LBS PART/HR.
COAL PREPARATION PLANTS	PARTICULATE MATTER MAY NOT BE VENTED INTO THE OPEN AIR FROM ANY AIR TABLE EXHAUST IN EXCESS OF 0.05 GR/SCF OF EXHAUST GAS. ANY STACK VENTING AIR TABLE EXHAUST GASES INTO THE OPEN AIR SHALL CONTAIN FLOW STRAIGHTENING DEVICES OR A VERTICAL RUN OF SUFFICIENT LENGTH TO ESTABLISH FLOW PATTERNS CONSISTENT WITH ACCEPTABLE STACK SAMPLING PROCEDURES.
WEST VIRGINIA	
THERMAL DRYERS	VISIBLE EMISSIONS SHALL NOT EXCEED 20% OPACITY --
EXISTING	FOR ≤120,000 SCF/MIN 0.12 GR/SCF. 172,000 SCF/MIN 0.11 GR/SCF. 245,000 SCF/MIN 0.10 GR/SCF. 351,000 SCF/MIN 0.09 GR/SCF. ≥500,000 SCF/MIN 0.08 GR/SCF.
NEW	FOR ≤ 75,000 SCF/MIN 0.10 GR/SCF. 111,000 SCF/MIN 0.09 GR/SCF. 163,000 SCF/MIN 0.08 GR/SCF. ≥240,000 SCF/MIN 0.07 GR/SCF.
AIR TABLE OPERATION	PARTICULATE MATTER VENTED INTO THE OPEN AIR SHALL NOT EXCEED 0.05 GR/SCF OF GAS.

TABLE XIV

PARTICULATE REGULATIONS APPLICABLE TO LIME KILNS

	REGULATION
IOWA	KILNS FOR PROCESSING LIMESTONE SHALL NOT EMIT PARTICULATE MATTER IN EXCESS OF 0.1 GR/SCF OF EXHAUST GAS.
MICHIGAN	PARTICULATE EMISSIONS SHALL NOT EXCEED 0.20 LBS/1000 LBS GAS.
WAYNE COUNTY ROTARY KILNS	PARTICULATE EMISSIONS SHALL NOT EXCEED 0.20 LBS/1000 LBS GAS OR 99% BY WEIGHT COLLECTOR EFFICIENCY FOR NEW KILNS; 0.30 LBS/1000 LBS GAS OR 98.5% WEIGHT COLLECTOR EFFICIENCY FOR EXISTING KILNS.
OTHER KILNS	PARTICULATE EMISSIONS SHALL NOT EXCEED 0.20 LBS/1000 LBS GAS FOR NEW KILNS; 0.30 LBS/1000 LBS GAS FOR EXISTING KILNS.
PENNSYLVANIA	NOT IN EXCESS OF 0.02 GR/SCF OR $A = 0.76 (FXW).^{42}$ WHERE A = ALLOWABLE EMISSIONS IN LBS/HR W = CHARGING RATE IN UNITS/HR F = 200 LBS/TON OF PRODUCT
WISCONSIN	EMISSIONS SHALL NOT EXCEED 0.2 LBS DUST/1000 LBS OF GAS.

TABLE XV

PARTICULATE REGULATIONS APPLICABLE TO KRAFT PULP
LBS/TON OF AIR-DRIED KRAFT PULP

	RECOVERY FURNACES	LIME KILNS	SMELT TANKS	BARK BOILERS	REMARKS
ALASKA					NOT IN EXCESS OF 2 LBS PARTICULATE FROM ALL BLOW PITS, WASHER VENTS, STORAGE TANKS, DIGESTER RELIEF AND RECOVERY SYSTEMS IN KRAFT OR SULFITE MILLS.
FLORIDA					NOT IN EXCESS OF 3 LBS PARTICULATE/3000 LBS BLACK LIQUOR SOLIDS FED FOR NEW SOURCES AND NOT LATER THAN JULY 1, 1975 FOR EXISTING SOURCES.
IDAHO	4.0 BY JULY 1975	1.0 BY JULY 1975	0.5 BY JULY 1972		
LOUISIANA	4.0	1.0	0.5	0.6	
MAINE	4.0	1.0	0.5 FOR A 2-HR SAMPLING PERIOD		
MISSISSIPPI EXISTING MILLS NEW MILLS	4.0	1.0	0.5		SHALL MINIMIZE PARTICULATE EMISSIONS BY USE OF MODERN EQUIPMENT AND OPERATING PROCEDURES IN ACCORDANCE WITH BEST CURRENT TECHNOLOGY. IN NO CASE SHALL EMISSIONS EXCEED FEDERAL STANDARDS FOR NEW STATIONARY SOURCES.
NEW HAMPSHIRE	4.0	1.0	0.5		
NEW MEXICO	4.0	1.0	0.5		BASED ON DAILY AVERAGE.
NORTH CAROLINA	3.0	0.5			0.6 LBS/TON OF AIR-DRIED KRAFT PULP.
OREGON	4.0 BY JULY 1, 1975	1.0 BY JULY 1, 1975	0.5 BY JULY 1, 1972		
PENNSYLVANIA		F = 200 LBS/TON OF PRODUCT			NOT IN EXCESS OF 0.02 GR/SCF OR $A = 0.76\ (FW)^{.42}$ WHERE A = ALLOWABLE EMISSIONS IN LBS/HR W = CHARGING RATE IN UNITS/HR F = PROCESS WEIGHT FACTOR IN LBS/UNIT AS SHOWN LEFT.
SOUTH CAROLINA	2.75	1.0	1.0		
VIRGINIA	4.0	1.0	0.75		0.3 LBS/TON AIR-DRIED KRAFT FOR ALL SHAKER TANK VENTS.

TABLE XVI
REGULATIONS APPLICABLE TO VISIBLE EMISSION
-PARTICULATE-

	FUEL BURNING[1] % OPACITY	INCINERATION[1] % OPACITY	INDUSTRIAL PROCESS % OPACITY
Alabama	20	20	20
Alaska	20	20[2]	20
Arizona	40	40	
Arkansas	20[3]	20[3]	20[3]
California[4]			
Colorado	20	20	20
Connecticut	20	20	20
Delaware	20	20	20
Dist. of Col.		no visible discharges	
Florida	20	20	no visible discharges[5]
Georgia	20[3]	20[3]	10[6]
Hawaii	20[3]	20[3]	20[3]
Idaho	20[3]	20[3]	20[3]
Illinois	20[7]	30	30[8]
Indiana	40	40	40
Iowa	20	20	-
Kansas	20[3]	20	20[3]
Kentucky	20[9]	20	20[3,8]
Louisiana	20	20	-
Maine	40	20	40[10]
Maryland[11]		no visible discharges	
Massachusetts	20	20	20
Michigan[12]	40	40	40
Minnesota	20[13]	20	20[13]
Mississippi	40	40	40[14]
Missouri[15]	20[3]	20	20[3]
Montana	20[3]	20	20[3]
Nebraska	20	20	20
Nevada	20	20	20[16]
New Hampshire	20[3]	-	-
New Jersey	20[17]	20	20

TABLE XVI (CONT'D)

	FUEL BURNING % OPACITY	INCINERATION % OPACITY	INDUSTRIAL PROCESS % OPACITY
New Mexico	20	20	20
New York	20[18]	20[18]	20[19]
N. Carolina	20[3]		20[3]
N. Dakota	20[3]	20	20[20]
Ohio	20	20	20
Oklahoma	20	20	20
Oregon	20[21]	20[21]	20[21]
Pennsylvania	60[22]	60[22]	60[22]
Rhode Island	20	20	20
S. Carolina	20[3]	20[3]	20[3]
S. Dakota	20[23]	20	20
Tennessee	20[24]	20[24]	20[24]
Texas	20[25]	20[25]	-
Utah	20[3]	20	20[3]
Vermont	60[26]	60[26]	60[26]
Virginia	20	20	20
Washington[27]	20[3]	20[3]	20[3]
West Virginia	20[28]	20	20
Wisconsin[29]	20	20	20
Wyoming	20[3]	20	20[3]
A. Samoa	20	20	20
Guam	20	20	20
Puerto Rico	20	20	20
Virgin Islands	20[3]	20[3]	20[3]

TABLE XVI - REGULATIONS APPLICABLE TO VISIBLE EMISSIONS

[1]when presence of uncombined water is the only reason for failure of emissions to meet limitation, these requirements shall not apply

[2]for incinerators installed on or after July 1, 1972; 40% for incinerators installed prior to July 1, 1972.

[3]for new equipment; 40% for existing equipment

[4]each county has its own regulations

[5]for sulfuric acid plants and nitric acid plants

[6]for new Portland Cement Plants, new nitric acid plants, new sulfuric acid plants; 40% for existing conical burners

[7]for new sources >250 million BTU/hr capacity; 30% for existing sources

[8]10% for new Portland Cement

[9]for Priority I regions; 40% for Priority II and III regions

[10]those processes that have been given a longer time to comply with particulate emission standards shall be exempt until that particulate emission standard must be complied with

[11]for Baltimore AQCR and National Capital AQCR only; for Western Md. AQCR, Central Md. AQCR, Southern Md. AQCR, and Eastern Shore AQCR; 20% opacity for existing fuel burning sources and incinerators and no visible emissions for new sources, and for existing or modified bituminous concrete manufacturing plants

[12]also applies to Wayne County

[13]for new installations and 60% for existing installations

[14]60% shall be permitted from soot blowing operations

[15]also applies to Kansas City

[16]copper smelter exempted

[17]for ≥200 million BTU/hr capacity, no visible emissions are allowed for sources with <200 million BTU/hr capacity.

[18]for a period of 3 or more minutes during any continuous 60 minute period. 40% for any time period for N. Y. City, Nassau and Westchester Co's.

TABLE XVI - REGULATIONS APPLICABLE TO VISIBLE EMISSIONS (CONT'D)

[19] for charging coke ovens after December 31, 1974.

[20] except for those processes, such as oil field service and drilling operations, where it may not be technically feasible to meet this specification.

[21] for new sources and existing sources in Columbia-Willamette area, Willamette Valley, Lane Regional area, Mid-Willamette Valley, Umpaqua Basin, Rogue Basin, incorporated cities of 4000 or more people (and within 3 miles of the corporate limits of any such city) 40% for all other existing sources

[22] 20% for a period or periods aggregating more than 3 minutes in any one hour

[23] wood waste burners may exceed this limitation

[24] for sources constructed after August 9, 1969; 40% for sources constructed on or before August 9, 1969; 20% for all sources after August 9, 1975

[25] for sources beginning construction after January 31, 1972; 30% for existing sources

[26] 40% for more than a period or periods aggregating 6 minutes in any hour

[27] 40% for sources in Puget Sound

[28] from September 1, 1972 until June 30, 1975 for units not meeting weight emission standards and 10% opacity thereafter; 10% for units meeting weight emission standards

[29] for all new sources and for existing sources in the Milwaukee and Lake Michigan AQCR's; 40% for existing sources in the rest of the state

TABLE XVII

REGULATIONS APPLICABLE TO STATED SOURCES

	SULFURIC ACID PLANTS		SULFUR RECOVERY PLANTS	NITRIC ACID PLANTS
	MIST	SO_2		
	LBS/TON 100% ACID	LBS SO_2/TON 100% ACID	LBS S/LB INPUT	LBS NO/TON 100% ACID
ALABAMA	0.5	6.5	.16[1]	5.5
ALASKA				5.5[2]
ARIZONA				
ARKANSAS	3	3	3	
CALIFORNIA[4]				
COLORADO[3]				
CONNECTICUT		6.5	0.01	5.5
DELAWARE		5	6	
DIST. OF COL.				
FLORIDA	0.15[7]	4.0[8]		3.0
GEORGIA	0.15	4.0[8]		3.0[9]
HAWAII				
IDAHO				
ILLINOIS	0.15	4.0[10]		3.0[10]
INDIANA[11]				
IOWA	0.5[12]	6.5[12]		5.5
KANSAS	0.5[13]	30.0[13]		5.8
KENTUCKY	0.15[14]	4.0[15]		3.0[16]
LOUISIANA		6.5	0.01	6.5
MAINE				
MARYLAND				5.5[17]
MASSACHUSETTS		4.0[18]		
MICHIGAN[19]	0.7	6.5	.01	
MINNESOTA	.15[20]	4.0[21]		5.5
MISSISSIPPI	0.5		0.06	
MISSOURI	3	3		
MONTANA				
NEBRASKA				5.5
NEVADA				
NEW HAMPSHIRE	0.18		0.01	9.0
NEW JERSEY	1.88[22]		23	
NEW MEXICO		26.6[24]		
NEW YORK				
NORTH CAROLINA	0.5	27.0		5.8
NORTH DAKOTA				
OHIO	0.5	6.5	0.01	5.5
OKLAHOMA[25]	0.15	4.0	0.01	3.0
OREGON				
PENNSYLVANIA	0.5	6.5	26	5.5
RHODE ISLAND				
SOUTH CAROLINA	0.5	10.0[27]		
SOUTH DAKOTA				5.5
TENNESSEE	0.5[28]	4.0[29]		
TEXAS		30	31	
UTAH	32	32	32	
VERMONT				
VIRGINIA	0.9	27.0[33]	0.05	5.8
WASHINGTON[34]				
WEST VIRGINIA[35]		30.0[36]	0.06	
WISCONSIN		4.0		3.0[37]
WYOMING	0.15	4.0		5.5
AMERICA SAMOA				
GUAM				
PUERTO RICO		6.5	0.05	
VIRGIN ISLANDS				

TABLE XVII - REGULATIONS APPLICABLE TO STATED SOURCES (CONT'D)

[1]for existing sulfur recovery plants; 0.08 lbs S/lb input for new plants

[2]for existing sources; 3.0 lbs NO_2/ton of weak acid (30-70% strength)

[3]only ground level standards given

[4]each county has its own regulations

[5]1000 ppm by volume for existing plants; 500 ppm by volume for new plants

[6]2000 ppm by volume

[7]for new plants only, no regulation stated for existing plants

[8]for new plants only; 10 lbs SO_2/ton 100% acid for existing plants

[9]for new plants; 10 lbs NO_2/ton 100% acid for existing plants

[10]for new plants only; no regulation given for existing sulfuric acid plants; 5.5 lbs NO/ton 100% acid for existing nitric acid plants

[11]East Chicago:
Sulfuric Acid Plants 6.5 lbs SO_2/ton 100% acid
0.5 lbs/ton 100% acid

[12]after January 1, 1974 for mist; after January 1, 1975 for SO_2

[13]per ton of 98% acid

[14]for new plants only; 0.9 lb/ton 100% acid for existing plants

[15]for new plants only; 27.0 lbs SO_2/ton 100% acid for existing plants

[16]for new plants only; 5.8 lbs NO_2/ton 100% acid for existing plants

[17]for the Metropolitan Baltimore AQCR and the National Capital AQCR only, for existing plants only; 3.0 lbs NO_2/ton 100% acid for new plants

[18]for all AQCR's, for new plants only; 27.0 lbs SO_2/ton 100% acid for existing sulfuric acid plants

[19]these regulations are for Wayne County, no regulations were stated for the state

[20]for new plants only; 1.7 lbs/ton 100% acid for existing plants

[21]for new plants only; 6.5 lbs SO_2/ton 100% acid for existing plants

[22]converted from lbs/hr

[23]15,000 ppm by volume at standard conditions

[24]for new plants only; 40 lbs SO_2/ton 100% acid for existing plants

[25]for new plants only; no regulations stated for existing plants

TABLE XVII - REGULATIONS APPLICABLE TO STATED SOURCES (CONT'D)

[26] according to $A=0.32E^{-0.5}$ where E=plant rating in longtons S/day and A=allowable emissions in lbs SO_2/lb S input

[27] 4.0 lbs SO_2/ton 100% acid by July 1, 1977

[28] for existing plants only; 0.15 lbs/ton 100% acid for new plants

[29] for new plants only; 6.5 lbs SO_2/ton 100% acid for existing plants

[30] 34.7 lbs SO_2/hr/1000 scfm effluent flow rate for plants burning other than elemental sulfur; 19.8 lbs SO_2/hr/1000 scfm effluent flow rate for plants burning elemental sulfur

[31] 214 lbs SO_2/hr/1000 scfm effluent flow rate

[32] 80% control for new sources with uncontrolled emissions ≥250ton/year of sulfur

[33] when elemental sulfur is used; 45 lbs SO_2/ton 100% acid when other materials are used as feed

[34] Northwest APA: 20 lbs SO_2/ton 100% acid
1.0 lbs/ton 100 % acid Sulfuric acid plants

[35] by June 30, 19 75

[36] when elemental sulfur is used; 40 lbs SO_2/ton 100% acid when other materials are used as feed

[37] for new or modified plants only

TABLE XVIII (CONT'D)

FROM FINAL PLANS - 1975 REGULATIONS APPLICABLE TO FUEL BURNING SOURCES - ALLOWABLE EMISSIONS LBS $SO_2/10^6$ BTU

	FUEL LIMITATION % S (LBS S/10^6 BTU)		HEAT INPUT (MILLION BTU/HR)								REMARKS
	OIL	COAL	≤ 10	< 50	100	< 250	>250	1000	>2000	ALL	
KENT & SUSSEX CO.	0.3 DISTILLATE										EMISSION RATE SHALL BE DETERMINED BY ACCEPTABLE ATMOSPHERIC DISPERSION EQUATIONS IN ORDER TO MEET AIR QUALITY STANDARDS.
DISTRICT OF COLUMBIA	0.5	0.5									AFTER JULY 1, 1975 -- UNTIL THEN 1% S FOR COAL; FOR OIL 1% S UNTIL JULY 1, 1973 AND 0.8% S UNTIL JULY 1, 1975.
FLORIDA							0.8 OIL 1.2 COAL				FOR NEW SOURCES ONLY. REGULATIONS FOR EXISTING SOURCES: 1.1 LBS $SO_2/10^6$ BTU FOR OIL 1.5 LBS $SO_2/10^6$ BTU FOR COAL FOR >250 MILLION BTU
GEORGIA							0.8 OIL 1.2 COAL				FOR NEW SOURCES ONLY; FOR EXISTING SOURCES LIMITATION IS A FUNCTION OF STACK HEIGHT, HEAT INPUT, LOCATION, FUEL USED. 2.5% S FOR COAL AND OIL FOR FUEL BURNING SOURCES <100 MILLION BTU/HR OF HEAT INPUT; 5.0% S FOR COAL AND OIL FOR FUEL BURNING SOURCES >100 MILLION BTU OF HEAT INPUT
HAWAII	0.5										AFTER JUNE 1, 1974 FOR FUEL BURNING SOURCES >250 MILLION BTU/HR AND 2.0% S FOR FUEL BURNING SOURCES <250 MILLION BTU/HR.
IDAHO	0.3 RESIDUAL 0.2 DISTILLATE	0.7									THIS REGULATION IS BEING DELETED, AND NEW % S LIMITATIONS WILL BE SET BY THE STATE WITHIN 1 YEAR OF APPROVAL OF THE PLAN.
ILLINOIS							1.2 COAL 0.8 RESID 0.3 DIST.				FOR NEW SOURCES ONLY; FOR EXISTING SOURCES AT ALL HEAT INPUTS: 1.0 LBS $SO_2/10^6$ BTU FOR RESIDUAL OIL 0.3 LBS $SO_2/10^6$ BTU FOR DISTILLATE OIL 1.8 LBS $SO_2/10^6$ BTU FOR COAL. FOR CHICAGO, ST. LOUIS, AND BURLINGTON AQCR's
GRANITE CITY											SO_2 EMISSIONS MAY NOT CAUSE THE AMBIENT AIR TO EXCEED ITS LIMITATIONS AT ANY OCCUPIED PLACE BEYOND THE PREMISES ON WHICH THE SOURCE IS LOCATED.
COOK COUNTY	1.0	1.0									
INDIANA											NOT IN EXCESS OF 6.0 LBS $SO_2/10^6$ BTU OR $E_m = 17Q^{-0.33}$ WHICHEVER IS LESS. IN NO CASE WILL STANDARD OF LESS THAN 1.2 LBS $SO_2/10^6$ BTU BE REQUIRED.
LAKE COUNTY											NOT TO CAUSE GROUND LEVEL CONCENTRATIONS TO EXCEED THEIR LIMITATIONS.
PORTER COUNTY											"PROPOSED ORDINANCE WHICH IS SIMILAR TO LAKE COUNTY"
ST. JOSEPH COUNTY										6.0	BUT NOT IN EXCESS OF $E_m = 17.0Q_m^{-0.33}$ (Q_m IS TOTAL EQUIPMENT CAPACITY)
VIGO COUNTY											NOT TO CAUSE GROUND LEVEL CONCENTRATIONS TO EXCEED LIMITATIONS
ANDERSON											NO SO_2 REGULATIONS
EAST CHICAGO											SAME AS LAKE COUNTY
EVANSVILLE											NO SO_2 REGULATIONS
GARY											SAME AS LAKE COUNTY

TABLE XVIII (CONT'D)

FROM FINAL PLANS - 1975 REGULATIONS APPLICABLE TO FUEL BURNING SOURCES - ALLOWABLE EMISSIONS LBS $SO_2/10^6$ BTU

	FUEL LIMITATION % S (LBS S/10^6 BTU)		HEAT INPUT (MILLION BTU/HR)								REMARKS
	OIL	COAL	≤10	<50	100	<250	>250	1000	>2000	ALL	
HAMMOND INDIANAPOLIS MICHIGAM CITY WAYNE COUNTY	1.5	1.5									SAME AS LAKE COUNTY NO SO_2 REGULATIONS SAME AS LAKE COUNTY NO SO_2 REGULATIONS
IOWA										5.0 COAL 1.5 OIL	PROPOSED REGULATION - AFTER JANUARY 1, 1974: AFTER JANUARY 1, 1973: 6.0 LBS $SO_2/10^6$ BTU FOR COAL 2.0 LBS $SO_2/10^6$ BTU FOR OIL
KANSAS							3.0				
KENTUCKY PRIORITY I PRIORITY II PRIORITY III			4.0 COAL 2.5 OIL 4.0 COAL 2.5 OIL 4.0 COAL 2.5 OIL				1.2 COAL 0.8 OIL	3.5 COAL 2.0 OIL			2.0 COAL 1.5 OIL | FOR 500 MILLION BTU/HR
LOUISIANA											2000 ppm
MAINE PORTLAND AQCR CENTRAL MAINE DOWNEAST AROOSTOOK CO. N.W. MAINE AQCR	1.5 2.5 2.5 2.5 2.5	1.5 2.5 2.5 2.5 2.5									
MARYLAND CUMBERLAND MD. AQCR BALTIMORE AQCR NATIONAL CAPITAL AQCR EASTERN SHORE AQCR SOUTHERN SHORE AQCR CENTRAL MD. AQCR	0.5 RESIDUAL 0.3 DISTILLATE 0.5 RESIDUAL 0.3 DISTILLATE 0.5 RESIDUAL 0.3 DISTILLATE 0.5 RESIDUAL 0.3 DISTILLATE 0.5 RESIDUAL 0.3 DISTILLATE 0.5 RESIDUAL 0.3 DISTILLATE	1.0 1.0 1.0 1.0 1.0 1.0									UNTIL JULY 1, 1975, IT S WILL APPLY TO RESIDUAL OIL. UNTIL JULY 1, 1975, IT S WILL APPLY TO RESIDUAL OIL. SAME AS BALTIMORE SAME AS BALTIMORE SAME AS BALTIMORE SAME AS BALTIMORE
MASSACHUSETTS CENTRAL MASS. AQCR MERRIMACK VALLEY AQCR BOSTON AQCR PIONEER VALLEY AQCR S.E. MASS. AQCR BERKSHIRE	(0.17 NO. 2 OIL 0.55 OTHERS) (0.17 NO. 2 OIL 0.55 OTHERS) (0.17 NO. 2 OIL 0.28 OTHERS) (0.17 NO. 2 OIL 0.55 OTHERS) (0.17 NO. 2 OIL 0.55 OTHERS) (0.17 NO. 2 OIL 0.55 OTHERS)	(0.55) (0.55) (0.28) (0.55) (0.55) (0.55)									FOR ARLINGTON, BELMONT, BOSTON, BROOKLINE, CAMBRIDGE, CHELSEA, EVERETT, MALDEN, MEDFORD, NEWTON, SOMERVILLE, WALTHAM, WATERTOWN - FOR ALL OTHER TOWNS & CITIES IN THIS AQCR: FOR COAL & OIL 0.55 LBS S/10^6 BTU

TABLE XVIII (CONT'D)

FROM FINAL PLANS - 1975 REGULATIONS APPLICABLE TO FUEL BURNING SOURCES -
ALLOWABLE EMISSIONS LBS $SO_2/10^6$ BTU

	FUEL LIMITATION Σ S (LBS S/10^6 BTU)		HEAT INPUT (MILLION BTU/HR)								REMARKS
	OIL	COAL	≤10	<50	100	<250	>250	1000	>2000	ALL	
MICHIGAN	2.0	2.0								3.2 C	≤500,000 LBS STEAM PER HOUR BY JULY
	1.5	1.5								2.2 O	1, 1975 FOR POWER PLANTS ONLY.
										2.4 C	>500,000 LBS STEAM PER HOUR BY JULY
WAYNE COUNTY	0.3 DISTILLATE 0.7 HEAVY & CRUDE	0.5 PLANTS 0.3 RES.,COM.								1.7 O	1, 1975 FOR POWER PLANTS ONLY. AFTER AUGUST 1, 1975 - 1.25% S FOR PULVERIZED COAL FOR POWER PLANTS.
MINNESOTA	2.0	2.0									AFTER JUNE 1, 1974 - FOR FUEL BURNING SOURCES >250 MILLION BTU/HR & LOCATED OUTSIDE OF THE MINNEAPOLIS ST. PAUL AQCR. AFTER JUNE 1, 1974 FOR ≤250 MILLION BTU/HR. ANY INSTALLATIONS >250 MILLION BTU/HR WILL HAVE THE FOLLOWING LIMITATIONS: AFTER JUNE 1, 1974 1.5% S FOR OIL AFTER JUNE 1, 1973 1.5% S FOR COAL AFTER JUNE 1, 1972 2.0% S
MINNEAPOLIS - ST PAUL AQCR	2.0	2.0									
MISSISSIPPI										4.8	2.4 LBS $SO_2/10^6$ BTU FOR ANY MODIFIED FUEL BURNING UNIT (MODIFIED MEANS A PHYSICAL CHANGE IN AN AIR CONTAMINANT SOURCE WHICH INCREASES THE AMOUNT OF ANY AIR POLLUTANT EMITTED OR RESULTS IN THE EMISSION OF ANY AIR POLLUTANT NOT PREVIOUSLY EMITTED).
MISSOURI											
KANSAS CITY	2.0	2.0								2.3	STATE REGULATION INCLUDES ST. LOUIS METRO. AREA. SO_2 EMISSIONS SHALL NOT CAUSE AMBIENT AIR QUALITY LIMITATIONS TO BE EXCEEDED AT ANY OCCUPIED PLACE BEYOND THE PREMISES ON WHICH THE SOURCE IS LOCATED.
SPRINGFIELD-GREENE CO.										2.0	FOR EXISTING SOURCES; 0.5 LBS $SO_2/10^6$ BTU FOR NEW SOURCES. THIS REGULATION IS FOR SOURCES THAT BURN FUEL PRIMARILY TO PRODUCE HEAT AND WHERE THE SULFUR COMPOUND EMISSION IS DUE PRIMARILY TO THE SULFUR IN THE FUEL BURNED - FOR ALL OTHER SOURCES THE REGULATION SHALL BE NOT TO EXCEED AMBIENT AIR QUALITY LIMITATIONS.
MONTANA	(1.0)	(1.0)									
NEBRASKA											NOT IN EXCESS OF THE FOLLOWING: a) DURING ANY CONSECUTIVE 12 MONTH PERIOD, SULFUR OXIDES IN EXCESS OF THE AMOUNT EMITTED DURING 1971 CALENDAR YEAR b) DURING ANY 24 HR. PERIOD, SULFUR OXIDES EXCEEDING THE MAXIMUM AMOUNT EMITTED DURING ANY CONSECUTIVE 24 HR. PERIOD DURING 1971 CALENDAR YEAR.
NEVADA											
WASHOE CO.	1.0		1.4								0.105 X HEAT INPUT FOR ≥250 MILLION BTU/HR.
CLARK CO.	1.0										0.15n HEAT INPUT
NEW HAMPSHIRE	0.4 NO. 2 OIL 1.0 NO. 4, 5, & 6 OIL										AFTER OCTOBER 1, 1972

TABLE XVIII (CONT'D)

FROM FINAL PLANS - 1975 REGULATIONS APPLICABLE TO FUEL BURNING SOURCES - ALLOWABLE EMISSIONS LBS $SO_2/10^6$ BTU

	FUEL LIMITATION % S (LBS S/10^6 BTU)		HEAT INPUT (MILLION BTU/HR)								REMARKS
	OIL	COAL	>10	<30	100	<250	>250	1000	>2000	ALL	
NEW JERSEY NJ-NY-CONN AQR PHILADELPHIA AQCR'S NE PENN-LPPER DELAWARE AND NJ INTRASTATE AQCR	0.2 NO. 2 OIL 0.3 NO. 4 & HEAVIER OIL 0.3 NO. 2 OIL 0.7 NO 4 OIL 1.0 NO. 5 & HEAVIER	0.2 1.0 BITUMINOUS 0.7 ANTHRACITE									HIGHER % S COAL AND OIL CAN BE USED IF IT CAN BE DEMONSTRATED THAT THE SO_2 EMISSIONS CAN BE CONTROLLED SO AS NOT TO EXCEED 0.3 LBS $SO_2/10^6$ BTU.
NEW MEXICO ALBUQUERQUE-BERNALILLO CO.							0.34				NO SO_2 REGULATIONS
NEW YORK NJ-NY-CONN AQCR NIAGARA FRONTIER AQCR	(1.65) 0.3 RESIDUAL 0.2 DISTILLATE (0.6)	(2.00) 0.3 (1.4)									AFTER SEPT. 30, 1973; 0.1% S FOR DISTILLATE AFTER SEPT. 30, 1974; AFTER OCT. 1, 1971 FUEL CANNOT CONTAIN MORE THAN 0.2 LBS S/10^6 BTU GROSS HEAT CONTENT AFTER OCT. 1, 1975 FOR OIL; AFTER OCT. 1, 1974 FOR COAL. EXCEPTIONS TO THE SULFUR LIMITATIONS ARE ALLOWED IF SULFUR EMISSIONS ARE NOT IN EXCESS OF THOSE PROVIDED BY THE RULE.
NORTH CAROLINA		1.0								1.6	FOR NEW INSTALLATIONS ONLY; 2.3 LBS $SO_2/10^6$ BTU FOR EXISTING INSTALLATIONS; BY 1980, 1.6 LBS $SO_2/10^6$ BTU FOR ALL INSTALLATIONS.
NORTH DAKOTA										3.0	
OHIO PRIORITY I REGIONS PRIORITY II REGIONS PRIORITY III REGIONS										1.0 1.6 3.1	REGIONS ARE: CINCINNATI, CLEVELAND, MARIETTA, N.W. OHIO, STEUBENVILLE, TOLEDO, YOUNGSTOWN, ZANESVILLE REGIONS ARE: DAYTON, MANSFIELD-MARION REGIONS ARE: COLUMBUS, PORTSMOUTH-IRONTON, SANDUSKY, WILMINGTON-CHILLICOTHE-LOGAN
OKLAHOMA										0.3 OIL 2.0 COAL	AFTER JULY 1, 1975, FOR NEW LIQUID BURNING EQUIPMENT UNTIL THEN THE LIMITATION IS 0.8 LBS $SO_2/10^6$ BTU. THIS COAL LIMITATION IS FOR NEW EQUIPMENT ONLY; ONLY GROUND LEVEL CONCENTRATIONS ARE GIVEN FOR EXISTING FUEL BURNING EQUIPMENT.
OREGON COLUMBIA-WILLAMETTE MID WILLAMETTE LANE REGIONAL	1.75 RESIDUAL 0.3 DISTILLATE	1.0				1.4 OIL 1.6 COAL	0.8 OIL 1.2 COAL			1.0	THE RESIDUAL OIL RESTRICTION APPLIES AFTER JULY 1, 1974. UNTIL THEN THE RESTRICTION IS 2.32 # EMISSION LIMITATIONS APPLY TO NEW SOURCES ONLY 1000 ppm 1000 ppm
PENNSYLVANIA PHILADELPHIA ALLEGHENY CO., BEAVER VALLEY, MONONGAHELA VALLEY, SE AIR BASIN	0.2 NO. 2 & LIGHTER 0.3 NO. 4 & HEAVIER	0.3		3.0 1.0					1.8 0.6		A=5.1E$^{-0.14}$ lbs/10^6 BTU FOR 50 ≤ HEAT INPUT ≤ 2000 OIL REGULATIONS APPLY AFTER OCTOBER 1, 1973; COAL REGULATIONS APPLY AFTER OCTOBER 1, 1972 - HIGHER % S FUELS CAN BE USED WHEN EQUIPMENT OR PROCESSES ARE USED TO REDUCE EMISSIONS. A=1.7E$^{-0.14}$ LBS/10^6 BTU FOR 50 ≤ HEAT INPUT ≤ 2000
RHODE ISLAND	1.0	1.0									

TABLE XVIII (CONCLUDED)

FROM FINAL PLANS - 1975 REGULATIONS APPLICABLE TO FUEL BURNING SOURCES -
ALLOWABLE EMISSIONS LBS $SO_2/10^6$ BTU

	FUEL LIMITATION % S (LBS S/10^6 BTU)		HEAT INPUT (MILLION BTU/HR)								REMARKS
	OIL	COAL	<10	<50	100	<250	>250	1000	>2000	ALL	
SOUTH CAROLINA										1.6 OIL 2.0 COAL	THESE REGULATIONS GO INTO EFFECT JULY 1, 1977; UNTIL THEN THE REGULATION FOR ALL FUELS IS 2.3 LBS $SO_2/10^6$ BTU - RESIDENCES OR DWELLINGS OF FOUR FAMILIES OR LESS ARE EXEMPT.
SOUTH DAKOTA											
TENNESSEE										3.0	
KNOX COUNTY CHATTANOOGA-HAMILTON CO. DAVIDSON CO.	2.0	2.0									2000 ppm FOR EXISTING SOURCES BY AUG. 1, 1973 620 ppm FOR NEW SOURCES AND FOR ALL SOURCES BY JULY 1, 1975. REGULATIONS WILL BE UPDATED BY MARCH 30, 1972 TO CONFORM WITH THE STATE REGULATIONS.
MEMPHIS-SHELBY CO.											2000 ppm AT 50% EXCESS AIR FOR EXISTING 620 ppm AT 15% EXCESS AIR FOR NEW SOURCE AND FOR ALL SOURCES AFTER JULY 1, 1975.
TEXAS											
GALVESTON & HARRIS CO.'S										3.0 C.	FOR STEAM GENERATORS. 400 ppm FOR OIL FOR STEAM GENERATORS.
JEFFERSON & ORANGE CO.'S											SO_2 EMISSIONS NOT TO CAUSE GROUND LEVEL CONCENTRATIONS EXCEEDING 0.28 PPM AVERAGED OVER A 30 MINUTE PERIOD SO_2 EMISSIONS NOT TO CAUSE GROUND LEVEL CONCENTRATIONS EXCEEDING 0.32 PPM AVERAGED OVER A 30 MINUTE PERIOD.
UTAH	1.5	1.0									
VERMONT	1.0	1.0									
VIRGINIA											AFTER OCTOBER 1, 1976; BY OCTOBER 1, 1972 FUEL LIMITATION IS 1.72 S.
											NOT IN EXCESS OF 2.64K÷S WHERE K IS TOTAL CAPACITY RATING IN MILLION BTU/HR AND S IS ALLOWABLE EMISSIONS OF SULFUR OXIDES IN LBS/HR.WHERE ATTAINMENT OF AMBIENT AIR QUALITY STANDARDS IS REQUIRED, K CAN BE MULTIPLIED BY FACTORS 1.50 AND/OR 1.00.
WASHINGTON											
PUGET SOUND	0.3 NO. 1 DISTILLATE									1.5	1000 PPM FOR ALL SOURCES AFTER JULY 1, 1975 AND PRESENTLY FOR ALL NEW SOURCES; UNTIL THEN EXISTING SOURCES ARE RESTRICTED TO 2000 PPM.
SPOKANE CO.	0.3 NO. 1 DISTILLATE									1.5	2000 ppm
NORTHWEST											NO SO_2 REGULATION
SOUTHWEST											NO SO_2 REGULATIONS
OLYMPIC											NO SO_2 REGULATIONS
YAKIMA											
WEST VIRGINIA											
PRIORITY I & II	1.5	2.0								2.7	EFFECTIVE 1975
PRIORITY III EXCEPT KANAWHA										3.2	EFFECTIVE JULY 1975 ONLY IF GENERATING STEAM FOR ELECTRIC POWER
KANAWHA VALLEY										1.6	EFFECTIVE JULY, 1975
											EFFECTIVE JANUARY, 1973
WISCONSIN											
WYOMING							0.8 O 1.2 C				FOR NEW SOURCES ONLY
AMERICAN SAMOA	3.5	3.5									NO SO_2 REGULATION GIVEN IN FINAL PLAN.
GUAM										2.81	EFFECTIVE 1975; 1.94 LBS $SO_2/10^6$ BTU EFFECTIVE AS OF 1977.
PUERTO RICO	1.0	1.0								2.81	SAME AS FOR AMERICAN SAMOA.
											BY APRIL 1, 1975; 1.5% BY APRIL 1, 1974; 2.0% S BY OCTOBER 1, 1973; 0.5% BY APRIL 1, 1975 IN SAN JUAN, CATANO, GUAYNABO, & BAYAMON
VIRGIN ISLANDS	0.5										BY MARCH 1974; 1.0% BY MARCH 1973

TABLE XIX

REGULATIONS APPLICABLE TO STATED SOURCES

	FUEL BURNING LBS $NO_x/10^6$ BTU OF HEAT INPUT/HR			NON-FERROUS SMELTERS[1] LBS SO_2/HR		
	GAS	LIQUID	SOLID	Cu	Pb	Zn
Alabama[2,3]	0.2	0.3	0.7			
Alaska						
Arizona				y=0.1x		
Arkansas						
California[4]						
Colorado						
Connecticut	0.2	0.3	0.7[5]	0.2x	$0.98x^{.77}$	$0.564x^{.85}$
Delaware[6]	0.2	0.3	0.3			
Dist. of Col.[7]	0.2	0.3	0.7			
Florida[2]	0.2	0.3	0.7			
Georgia[2]	0.2	0.3	0.7			
Hawaii						
Idaho						
Illinois[2,8]	0.3	0.3	0.7			
Indiana[2]	0.2	0.3	0.7			
Iowa	0.2	0.3				
Kansas[2]	0.3	0.3		-	$0.98x^{.77}$	$0.564x^{.85}$
Kentucky[3,9]	0.2	0.3	0.7			
Louisiana						
Maine						
Maryland[3,10]	0.2	0.3	0.5			
Massachusetts[2]	0.3	0.3	0.3			
Michigan						
Minnesota[3,11]	0.2	0.3				
Mississippi				0.2x	$0.98x^{.77}$	$0.564x^{.85}$
Missouri						
Montana						
Nebraska[7]	0.2	0.3				
Nevada[12]				0.2x	$0.98x^{.77}$	$0.564x^{.85}$
N. Hampshire				0.2x	$0.98x^{.77}$	$0.564x^{.85}$
New Jersey						
New Mexico	0.2[13,14]	0.3[13]	0.45[2,15]	0.8x[16]	0.8x[16]	0.8x[16]
New York	0.2	0.3	0.7			
N. Carolina[3]	0.6	0.6	1.30			
N. Dakota						
Ohio[3]	0.2	0.3	0.9	0.2x	$0.98x^{.77}$	$0.564x^{.85}$
Oklahoma[17]	0.2	0.3	0.7	0.2x	$0.98x^{.77}$	$0.564x^{.85}$
Oregon						
Pennsylvania	0.3	0.3				
Rhode Island	0.2[7]	0.3[7]				
S. Carolina						
S. Dakota	0.2	0.3				
Tennessee						
Texas						
Utah						
Vermont[3]	18	0.3				

TABLE XIX (CONT'D)

	FUEL BURNING LBS $NO_x/10^6$ BTU OF HEAT INPUT/HR			NON-FERROUS SMELTERS[1] LBS SO_2/HR		
	GAS	LIQUID	SOLID	Cu	Pb	Zn
Virginia[19]	0.2	0.3	0.7	0.2x	$0.98x^{.77}$	$0.564x^{.85}$
Washington						
West Virginia				0.2x	$0.98x^{.77}$	$0.564x^{.85}$
Wisconsin[3,20]	0.2	0.3	0.7			
Wyoming	0.2	0.3				
Samoa						
Guam						
Puerto Rico				0.1x	$0.98x^{.77}$	$0.564x^{.85}$
Virgin Islands						

TABLE XIX - REGULATIONS APPLICABLE TO STATED SOURCES (CONT'D)

[1]for Cu,Pb,Zn, the following values apply:
x = Total sulfur feed to smelter (lb/hr)
y = Sulfur dioxide emissions (lb/hr)

[2]for new sources only

[3]for equipment with ≥250 million BTU/hr capacity

[4]each county has its own regulations

[5]for new equipment; 0.9 lbs/10^6 BTU for existing equipment

[6]for New Castle County after January 1, 1974 and for equipment with >500 million BTU/hr capacity

[7]for equipment with >100 million BTU/hr capacity

[8]the regulations for Chicago are:
0.3 lbs/10^6 BTU heat input for gas and liquid fuels
0.9 lbs/10^6 BTU heat input for solid fuel

[9]for new equipment; for existing equipment in Priority I regions, the following apply:
0.3 lbs/10^6 BTU for gas and liquid fuel burning equipment with ≥300 million BTU/hr capacity
0.9 lbs/10^6 BTU for solid fuel burning equipment with ≥300 million BTU/hr capacity

[10]for all 6 AQCR's

[11]for new installations in Priority I AQCR's only; for existing installations in Priority I AQCR;s: 0.3 lbs/10^6 BTU for gas fuel
0.4 lbs/10^6 BTU for liquid fuel

[12]the regulation for copper smelters applies only to new equipment.
y = 0.8 x for existing copper smelters

[13]for equipment with >1,000,000 million BTU/year capacity

[14]for new equipment only; 0.3 lbs/10^6 BTU for existing equipment after December 31, 1974

[15]for new equipment only; 0.7 lbs/10^6 BTU for existing equipment after December 31, 1974

[16]for existing sources; 0.2 x for new sources - regulation does not go into effect until after December 31, 1974

[17]for equipment with ≥50 million BTU/hr capacity

[18]0.3 lbs/10^6 BTU after July 1, 1973

[19]for sources ≥250 million BTU/hr capacity

[20]for new or modified fossil fuel-fired steam generators

TABLE XX

SULFUR OXIDE REGULATIONS APPLICABLE TO KRAFT PULP

	SULFUR OXIDES LIMITATION	TOTAL REDUCED SULFUR LIMITATION	REMARKS
ALASKA	20 LBS EXPRESSED AS SO_2 FROM ALL BLOW PITS, WASHER VENTS, STORAGE TANKS, DIGESTER RELIEF & RECOVERY SYSTEMS		BASED ON 24-HOUR AVERAGES AND EACH TON OF PULP PRODUCED
FLORIDA EXISTING PLANTS		17.5 PPM EXPRESSED AS H_2S ON A DRY GAS BASIS OR 0.5 LBS/3000 LBS OF BLACK LIQUOR FED, WHICHEVER IS MORE RESTRICTIVE - AS SOON AS POSSIBLE AND NOT LATER THAN JULY 1 1975	
NEW PLANTS		1 PPM EXPRESSED AS H_2S ON DRY GAS BASIS OR 0.03 LBS/3000 LBS OF BLACK LIQUOR FED, WHICHEVER IS MORE RESTRICTIVE	
IDAHO		2.0 LBS S/TON OF EQUIVALENT AIR-DRIED KRAFT PULP OR 70 PPM EXPRESSED AS H_2S ON A DRY GAS BASIS FROM EACH RECOVERY FURNACE STACK, WHICHEVER IS MORE RESTRICTIVE	BY DECEMBER 1972
		0.5 LBS S/TON EQUIVALENT AIR-DRIED KRAFT PULP OR 17.5 PPM EXPRESSED AS H_2S ON A DRY GAS BASIS FROM EACH RECOVERY FURNACE STACK, WHICHEVER IS MORE RESTRICTIVE	BY JULY 1975 - OR OTHER LIMITS THAT PROVE TO BE REASONABLY ATTAINABLE UTILIZING THE LATEST IN DESIGN OF RECOVERY FURNACE EQUIPMENT, CONTROLS, AND PROCEDURES
KENTUCKY SULFITE PULP MILLS	9.0 LBS/TON AIR-DRIED PULP PRODUCED FROM BLOW PITS, WASHER VENTS, STORAGE TANKS, DIGESTER TANKS, RECOVERY SYSTEMS, ETC.		
KRAFT PULP MILLS		17.5 PPM OR 0.5 LBS/TON OF AIR-DRIED PULP PRODUCED, WHICHEVER IS MORE RESTRICTIVE	NON-CONDENSIBLES GAS STREAMS MUST BE TREATED BY THERMAL OXIDATION OR AN EQUIVALENT METHOD
LOUISIANA	CONCENTRATIONS OF SO_2 SHALL NOT EXCEED 2000 PPM BY VOLUME AT STANDARD CONDITIONS		
MISSISSIPPI EXISTING MILLS		2 LBS S/TON EQUIVALENT AIR-DRIED KRAFT PULP OR 70 PPM EXPRESSED AS H_2S ON A DRY GAS BASIS FROM EACH RECOVERY FURNACE STACK, WHICHEVER IS MORE RESTRICTIVE	NON-CONDENSIBLES FROM DIGESTER SYSTEMS, MULTIPLE-EFFECT EVAPORATORS, AND SIMILAR KRAFT MILL GAS STREAMS, SHALL BE TREATED TO REDUCE EMISSION OF TRS EQUAL TO THE REDUCTION ACHIEVED BY THERMAL OXIDATION IN A LIME KILN FOLLOWED BY ALKALINE SCRUBBING
NEW MILLS			SHALL MINIMIZE GASEOUS EMISSIONS BY USE OF MODERN EQUIPMENT AND OPERATING PROCEDURES IN ACCORDANCE WITH BEST CURRENT TECHNOLOGY. IN NO CASE SHALL EMISSIONS EXCEED FEDERAL STANDARDS FOR NEW STATIONARY SOURCES

TABLE XX (CONCLUDED)

SULFUR OXIDE REGULATIONS APPLICABLE TO KRAFT PULP (CONCLUDED)

	SULFUR OXIDES LIMITATION	TOTAL REDUCED SULFUR LIMITATION	REMARKS
MONTANA		0.087 LBS/1000 LBS OF BLACK LIQUOR FROM EACH RECOVERY FURNACE OR 17.5 PPM, EXPRESSED AS H_2S ON A DRY GAS BASIS, WHICHEVER IS MORE RESTRICTIVE.	OR SUCH OTHER LIMIT OF TRS REASONABLY UTILIZING THE LATEST IN DESIGN, BUT NOT MORE THAN 0.087 LBS OF TRS/1000 LBS OF BLACK LIQUOR. NON-CONDENSIBLES FROM DIGESTERS AND MULTIPLE-EFFECT EVAPORATORS SHALL BE TREATED TO REDUCE EMISSION OF TRS EQUAL TO THE REDUCTION ACHIEVED BY THERMAL OXIDATION IN A LIME KILN
NEW HAMPSHIRE	20 LBS EXPRESSED AS SO_2	2 LBS S/TON AIR DRIED PULP FROM RECOVERY FURNACE STACKS	
NEW MEXICO ALBUQUERQUE		0.2 LBS/TON OF AIR DRIED KRAFT PULP 0.01 LB IN ANY ONE HOUR	BASED ON A DAILY AVERAGE TRS FROM A RECOVERY FURNACE STACK SHALL NOT EXCEED 0.1 LB S/TON OF EQUIVALENT AIR DRIED KRAFT PULP EXPRESSED AS H_2S ON A DRY BASIS.
OKLAHOMA	18 LBS/AIR-DRIED TON OF PULP PRODUCED FROM BLOW PITS, WASHER VENTS, STORAGE TANK, DIGESTER RELIEF, AND RECOVERY, BASED ON A MAXIMUM 2-HOUR AVERAGE		
OREGON		2 LBS S/TON OF EQUIVALENT AIR-DRIED KRAFT PULP OR 70 PPM EXPRESSED AS H_2S ON A DRY GAS BASIS, WHICHEVER IS MORE RESTRICTIVE. BY JULY 1, 1975, 0.5 LB S/TON OF EQUIVALENT AIR-DRIED KRAFT PULP OR 17.5 PPM EXPRESSED AS H_2S ON A DRY GAS BASIS, WHICHEVER IS MORE RESTRICTIVE, OR OTHER LIMIT THAT PROVES REASONABLY ATTAINABLE UTILIZING THE LATEST IN DESIGN OF RECOVERY FURNACE EQUIPMENT, CONTROLS, AND PROCEDURES.	BY JULY 1, 1972, EMISSIONS OF NON-CONDENSIBLES FROM DIGESTERS AND MULTIPLE EFFECT EVAPORATORS SHALL BE TREATED TO REDUCE EMISSION OF TRS EQUAL TO THE REDUCTION ACHIEVED BY THERMAL OXIDATION IN A LIME KILN.

TABLE XXI

REGULATIONS APPLICABLE TO HYDROCARBON

	NO REG	STORAGE OF VOLATILE ORGANIC COMPOUNDS	VOLATILE ORGANIC COMP. LOADING FACILITIES	VOLATILE ORGANIC COMP. WATER SEPARATOR	PUMPS AND COMPRESSORS	WASTE GAS DISPOSAL	ORGANIC SOLVENTS	ARCHITECTURAL COATINGS
ALABAMA		✓	✓	✓	✓	✓	✓	
ALASKA	✓							
ARIZONA		✓						
ARKANSAS	✓							
CALIFORNIA COUNTY REGS		✓	✓	✓	✓	✓	✓	✓
COLORADO	✓							
CONNECTICUT		✓	✓	✓	✓	✓	✓	✓
DELAWARE	✓							
DISTRICT OF COLUMBIA		✓	✓		✓	✓	✓	✓
FLORIDA		✓	✓					
GEORGIA	✓							
HAWAII		✓	✓	✓	✓	✓		
IDAHO	✓							
ILLINOIS		✓	✓	✓	✓	✓	✓	✓
INDIANA		✓	✓	✓		✓		
IOWA	✓							

TABLE XLI (CONT'D)

REGULATIONS APPLICABLE TO HYDROCARBON (CONTD)

	NO REG	STORAGE OF VOLATILE ORGANIC COMPOUNDS	VOLATILE ORGANIC COMP. LOADING FACILITIES	VOLATILE ORGANIC COMP. WATER SEPARATOR	PUMPS AND COMPRESSORS	WASTE GAS DISPOSAL	ORGANIC SOLVENTS	ARCHITECTURAL COATINGS
KANSAS		✓				✓		
KENTUCKY		✓	✓	✓	✓	✓	✓	
LOUISIANA		General Standard to maintain air quality.						
MAINE	✓							
MARYLAND		✓	✓	✓			✓	✓
MASSACHUSETTS		✓	✓					
MICHIGAN	✓							
MINNESOTA		✓						
MISSISSIPPI	✓							
MISSOURI		✓	✓					
MONTANA		✓	✓	✓				
NEBRASKA	✓							
NEVADA		✓	✓					
NEW HAMPSHIRE	✓							
NEW JERSEY	✓							

TABLE XXI (CONT'D)

REGULATIONS APPLICABLE TO HYDROCARBON (CONTD)

	NO REG	STORAGE OF VOLATILE ORGANIC COMPOUNDS	VOLATILE ORGANIC COMP. LOADING FACILITIES	VOLATILE ORGANIC COMP. WATER SEPARATOR	PUMPS AND COMPRESSORS	WASTE GAS DISPOSAL	ORGANIC SOLVENTS	ARCHITECTURAL COATINGS
NEW MEXICO		✓	✓					
NEW YORK NEW YORK METRO AREA		✓	✓	✓	✓	✓	✓	✓
NORTH CAROLINA		✓	✓				✓	
NORTH DAKOTA[1]		✓	✓		✓	✓		
OHIO		✓	✓	✓		✓	✓	✓
OKLAHOMA		✓	✓	✓	✓	✓	✓	✓
OREGON		✓						
PENNSYLVANIA		✓	✓	✓	✓	✓		
PHILADELPHIA		✓	✓	✓	✓	✓	✓	✓
RHODE ISLAND	✓							
SOUTH CAROLINA	✓							
SOUTH DAKOTA	✓							
TENNESSEE	✓							
TEXAS		✓	✓	✓		✓		
UTAH	✓							
VERMONT	✓							
VIRGINIA		✓	✓	✓	✓	✓	✓	✓

[1] New sources only.

TABLE XXI (CONCLUDED)

REGULATIONS APPLICABLE TO HYDROCARBON (CONCLUDED)

	NO REG	STORAGE OF VOLATILE ORGANIC COMPOUNDS	VOLATILE ORGANIC COMP. LOADING FACILITIES	VOLATILE ORGANIC COMP. WATER SEPARATOR	PUMPS AND COMPRESSORS	WASTE GAS DISPOSAL	ORGANIC SOLVENTS	ARCHITECTURAL COATINGS
WASHINGTON	✓							
WEST VIRGINIA	✓							
WISCONSIN		✓	✓	✓		✓	✓	
WYOMING		✓				✓		
AMERICAN SAMOA	✓							
GUAM	✓							
PUERTO RICO		✓				✓	✓	
VIRGIN ISLANDS		✓						

TABLE XXII REGULATIONS APPLICABLE TO PETROLEUM STORAGE

	CONTAINER	CONTROL DEVICES WHICH ARE PERMITTED				REMARKS
		FLOATING ROOF	VAPOR RECOVERY SYSTEM	EQUIPMENT OF EQUAL EFFICIENCY	SUBMERGED FILL PIPE	
ALABAMA	(a) ANY STATIONARY TANK RESERVOIR WITH >40,000 GALLONS CAPACITY.	NOT PERMITTED IF VAPOR PRESSURE ≥11.0 PSIA UNDER ACTUAL STORAGE CONDITIONS.	CONSISTING OF A VAPOR GATHERING SYSTEM AND A VAPOR DISPOSAL SYSTEM.	MAY BE APPROVED BY THE DIRECTOR.	PERMANENT	THESE REGULATIONS DO NOT APPLY TO CRUDE PETROLEUM. OR IS A PRESSURE TANK CAPABLE OF MAINTAINING WORKING PRESSURES SUFFICIENT AT ALL TIMES TO PREVENT HYDROCARBON VAPOR OR GAS LOSS.
	(b) ANY NEW STATIONARY STORAGE VESSEL WITH >1000 GALLON CAPACITY.					
	(c) EXISTING STATIONARY STORAGE VESSELS WITH >1000 GALLON CAPACITY	X	X		PERMANENT OR PORTABLE	
ARIZONA	(a) ANY RESERVOIR WITH >65,000 GALLONS USED TO STORE GASOLINE, PETROLEUM OR PETROLEUM DISTILLATE HAVING VAPOR PRESSURE >2.0 PSIA.	NOT PERMITTED IF VAPOR PRESSURE ≥12.0 PSIA UNDER ACTUAL STORAGE CONDITIONS.		X		CONTROL DEVICE IS REQUIRED IF NOT ABLE TO MAINTAIN WORKING PRESSURE SUFFICIENT AT ALL TIMES TO PREVENT VAPOR OR GAS LOSS.
	(b) ANY OTHER PETROLEUM STORAGE TANK CONSTRUCTED OR EXTENSIVELY REMODELED			X	X	
MARICOPA CO	(a) ANY RESERVOIR WITH >65,000 GALLONS USED TO STORE GASOLINE, PETROLEUM, OR PETROLEUM DISTILLATE HAVING VAPOR PRESSURE >2.0 PSIA.	NOT PERMITTED IF VAPOR PRESSURE ≥12.0 PSIA UNDER ACTUAL STORAGE CONDITIONS.		X		CONTROL DEVICE IS REQUIRED IF NOT ABLE TO MAINTAIN WORKING PRESSURE SUFFICIENT AT ALL TIMES TO PREVENT VAPOR OR GAS LOSS.
	(b) ANY OTHER PETROLEUM STORAGE TANK CONSTRUCTED OR EXTENSIVELY REMODELED.			X	X	
	(c) ANY NEW PETROLEUM OR PETROLEUM DISTILLATE STORAGE TANK WITH ≥250 GALLON CAPACITY USED TO STORE PETROLEUM PRODUCTS WITH A VAPOR PRESSURE ≥2.0 PSIA.	X	X		X	OR IS A PRESSURE TANK.
	(d) ALL EXISTING PETROLEUM OR PETROLEUM DISTILLATE STORAGE TANKS WITH ≥250 GALLON CAPACITY USED TO STORE PETROLEUM PRODUCTS WITH A VAPOR PRESSURE ≥2.0 PSIA.			X	X	
PIMA CO	(a) ANY STORAGE TANK, RESERVOIR OR OTHER CONTAINER WITH >40,000 GALLON CAPACITY USED TO STORE GASOLINA OR PETROLEUM DISTILLATE WITH A VAPOR PRESSURE ≥1.5 PSIA UNDER ACTUAL STORAGE CONDITIONS.	X	X	X		OR IS A PRESSURE TANK CAPABLE OF MAINTAINING WORKING PRESSURES SUFFICIENT AT ALL TIME TO PREVENT HYDROCARBON VAPOR OR GAS LOSS.
	(b) ANY STATIONARY TANK WITH ≥250 GALLON CAPACITY.		X	X	X	
CONNECTICUT	(a) ANY STATIONARY TANK, RESERVOIR, OR OTHER CONTAINER WITH >40,000 GALLON CAPACITY.	X	X	APPROVED BY THE COMMISSIONER.		CONTROL DEVICE REQUIRED IF NOT CAPABLE OF MAINTAINING WORKING PRESSURE SUFFICIENT AT ALL TIMES TO PREVENT VAPOR OR GAS LOSS.
	(b) ANY STATIONARY STORAGE VESSEL WITH >250 GALLON CAPACITY.	X	X	X	PERMANENT AND WITH A CONSERVATION VENT VALVE.	DOES NOT APPLY TO EXISTING GASOLINE RETAIL FACILITIES, CONSTRUCTION OF WHICH HAS BEEN COMMENCED PRIOR TO JUNE 1, 1972.
DISTRICT OF COLUMBIA	(a) ANY STATIONARY TANK, RESERVOIR, OR OTHER CONTAINER WITH >40,000 GALLON CAPACITY.					APPLIES ON AND AFTER FEBRUARY 1, 1973 - MUST BE ABLE TO MAINTAIN WORKING PRESSURE AT ALL TIMES SUFFICIENT TO PREVENT VAPOR OR GAS LOSS OR BE EQUIPPED WITH A VAPOR LOSS CONTROL DEVICE APPROVED BY THE COMMISSIONER OR IS A PRESSURE TANK. APPLIES ON AND AFTER FEBRUARY 1, 1973.
	(b) ANY STATIONARY STORAGE VESSEL WITH >250 GALLON CAPACITY.		X	APPROVED BY THE COMMISSIONER.	PERMANENT	
FLORIDA	NOT SPECIFIED.					MUST APPLY KNOWN AND EXISTING VAPOR EMISSION CONTROL DEVICES OR SYSTEMS DEEMED NECESSARY AND ORDERED BY THE DEPARTMENT.
HAWAII	(a) ANY STATIONARY TANK, RESERVOIR, OR OTHER CONTAINER WITH >40,000 GALLON CAPACITY.	NOT PERMITTED IF VAPOR PRESSURE ≥11.0 PSIA UNDER ACTUAL STORAGE CONDITIONS.	X	APPROVED BY THE DEPARTMENT.		APPLIES TO NEW SOURCE; ON JANUARY 1, 1975 WILL APPLY TO EXISTING SOURCES. OR IS A PRESSURE TANK.
	(b) ANY STATIONARY STORAGE VESSEL WITH >250 GALLON CAPACITY.		X		X	
ILLINOIS	ANY STATIONARY TANK, RESERVOIR, OR OTHER CONTAINER WITH >40,000 GALLON CAPACITY.	NOT PERMITTED IF VAPOR PRESSURE ≥12.5 PSIA AT 70°F.	CAPABLE OF COLLECTING 85% OR MORE OF THE UNCONTROLLED VOLATILE ORGANIC MATERIAL.	X		CONTROL DEV ..ES NOT REQUIRED IF A PRESSURE TANK CAPABLE OF MAINTAINING WORKING PRESSURES SUFFICIENT AT ALL TIMES TO PREVENT VAPOR OR GAS LOSS.

TABLE XXII REGULATIONS APPLICABLE TO PETROLEUM STORAGE

	CONTAINER	CONTROL DEVICES WHICH ARE PERMITTED				REMARKS
		FLOATING ROOF	VAPOR RECOVERY SYSTEM	EQUIPMENT OF EQUAL EFFICIENCY	SUBMERGED FILL PIPE	
INDIANA	(a) ANY STATIONARY TANK, RESERVOIR, OR OTHER CONTAINER WITH >40,000 GALLON CAPACITY.	NOT PERMITTED IF VAPOR PRESSURE ≥11.0 PSIA UNDER ACTUAL STORAGE CONDITIONS.	X	MAY BE APPROVED BY THE BOARD.		CONTROL DEVICES NOT REQUIRED IF A PRESSURE TANK CAPABLE OF MAINTAINING WORKING PRESSURES SUFFICIENT AT ALL TIMES TO PREVENT VAPOR OR GAS LOSS, OR IS A PRESSURE TANK.
	(b) ANY STATIONARY STORAGE VESSEL WITH >250 GALLON CAPACITY.		X		X	
EAST CHICAGO GARY HAMMOND INDIANAPOLIS LAKE CO MICHIGAN CITY EVANSVILLE	ANY STATIONARY TANK, RESERVOIR, OR OTHER CONTAINER WITH >63,000 GALLON CAPACITY STORING ANY PETROLEUM OR VOLATILE PRODUCT HAVING A VAPOR PRESSURE ≥1.5 PSIA UNDER ACTUAL STORAGE CONDITIONS.	NOT PERMITTED IF VAPOR PRESSURE ≥12.0 PSIA UNDER ACTUAL STORAGE CONDITIONS.	X	APPROVED BY THE DIRECTOR.		CONTROL DEVICE NOT REQUIRED IF A PRESSURE TANK CAPABLE OF MAINTAINING WORKING PRESSURES SUFFICIENT AT ALL TIMES TO PREVENT HYDROCARBON VAPOR OR GAS LOSS.
	ANY STATIONARY TANK, RESERVOIR, OR OTHER CONTAINER WITH >63,000 GALLON CAPACITY STORING ANY PETROLEUM PRODUCT OR MIXTURE OF PRODUCTS HAVING A VAPOR PRESSURE ≥1.5 PSIA UNDER ACTUAL STORAGE CONDITIONS.	NOT PERMITTED IF VAPOR PRESSURE ≥11.0 PSIA UNDER ACTUAL STORAGE CONDITIONS.	X	X		CONTROL DEVICE NOT REQUIRED IF A PRESSURE TANK CAPABLE OF MAINTAINING WORKING PRESSURES SUFFICIENT AT ALL TIMES TO PREVENT HYDROCARBON VAPOR OR GAS LOSS.
KANSAS	ANY STATIONARY TANK, RESERVOIR, OR OTHER CONTAINER WITH >40,000 GALLON CAPACITY USED TO STORE ANY GASOLINE OR PETROLEUM DISTILLATE WITH A VAPOR PRESSURE ≥3.0 PSIA UNDER ACTUAL STORAGE CONDITIONS.	NOT PERMITTED IF VAPOR PRESSURE ≥13.0 PSIA UNDER ACTUAL STORAGE CONDITIONS.	X	MAY BE APPROVED BY THE DEPARTMENT.		CONTROL DEVICE NOT REQUIRED IF A PRESSURE TANK CAPABLE OF MAINTAINING WORKING PRESSURES SUFFICIENT TO PREVENT VAPOR OR GAS LOSS.
KENTUCKY	(a) ANY STATIONARY TANK RESERVOIR WITH >40,000 GALLON CAPACITY	NOT PERMITTED IF VAPOR PRESSURE ≥11.0 PSIA UNDER ACTUAL STORAGE CONDITIONS.	CONSISTING OF A VAPOR GATHERING SYSTEM AND A VAPOR DISPOSAL SYSTEM.	MAY BE APPROVED BY THE DIRECTOR.		THESE REGULATIONS DO NOT APPLY TO CRUDE PETROLEUM.
	(b) ANY NEW STATIONARY STORAGE VESSEL WITH >1000 GALLON CAPACITY	X	X		PERMANENT	OR IS A PRESSURE TANK CAPABLE OF MAINTAINING WORKING PRESSURES SUFFICIENT AT ALL TIME TO PREVENT HYDROCARBON VAPOR OR GAS LOSS.
	(c) EXISTING STATIONARY STORAGE VESSELS WITH >1000 GALLON CAPACITY				PERMANENT OR PORTABLE.	
MARYLAND NATIONAL CAPITAL AQCR AND BALTIMORE AQCR	ANY STATIONARY TANK RESERVOIR WITH >40,000 GALLON CAPACITY USED TO STORE ORGANIC MATERIALS WITH A VAPOR PRESSURE ≥11.0 PSIA	X		APPROVED BY THE DEPARTMENT.		AFTER JANUARY 1, 1973 - OR A PRESSURE TANK SYSTEM MAINTAINING A PRESSURE AT ALL TIMES TO PREVENT ORGANIC MATERIAL LOSS TO THE ATMOSPHERE.
MASSACHUSETTS	(a) A STATIONARY TANK RESERVOIR WITH >40,000 GALLON CAPACITY USED TO STORE VOLATILE ORGANIC COMPOUNDS WITH A TRUE VAPOR PRESSURE IN THE RANGE OF 1.5 to 11 PSIA.	X	X	APPROVED BY THE DEPARTMENT.		OR IS A PRESSURE TANK SYSTEM MAINTAINING A PRESSURE AT ALL TIMES TO PREVENT ORGANIC MATERIAL LOSS.
	(b) A STATIONARY TANK RESERVOIR WITH >40,000 GALLON CAPACITY USED TO STORE VOLATILE ORGANIC COMPOUNDS WITH A TRUE VAPOR PRESSURE ≥11 PSIA		X	APPROVED BY THE DEPARTMENT.		OR IS A PRESSURE TANK SYSTEM MAINTAINING A PRESSURE AT ALL TIMES TO PREVENT ORGANIC MATERIAL LOSS.
MINNESOTA	(a) ANY STATIONARY TANK, RESERVOIR, OR OTHER CONTAINER WITH >63,000 GALLON CAPACITY USED TO STORE ANY PETROLEUM DISTILLATE WITH A VAPOR PRESSURE ≥2.5 PSIA.	NOT PERMITTED IF VAPOR PRESSURE ≥12.5 PSIA UNDER ACTUAL STORAGE CONDITIONS.	X	X		CONTROL DEVICES NOT REQUIRED IF A PRESSURE TANK CAPABLE OF MAINTAINING WORKING PRESSURE SUFFICIENT AT ALL TIMES TO PREVENT HYDROCARBON VAPOR OR GAS LOSS.
	(b) STATIONARY GASOLINE STORAGE TANKS WITH >250 GALLON CAPACITY		X		PERMANENT	OR IS A PRESSURE TANK CAPABLE OF MAINTAINING WORKING PRESSURE SUFFICIENT AT ALL TIMES TO PREVENT VAPOR OR GAS LOSS.
MISSOURI	(a) ANY STATIONARY TANK, RESERVOIR, OR OTHER CONTAINER WITH >40,000 GALLON CAPACITY USED TO STORE ANY PETROLEUM DISTILLATE WITH A VAPOR PRESSURE ≥1.5 PSIA UNDER ACTUAL STORAGE CONDITIONS.	NOT PERMITTED IF VAPOR PRESSURE ≥12.0 PSIA UNDER ACTUAL STORAGE CONDITIONS.	X	MAY BE APPROVED BY THE EXECUTIVE SECRETARY		CONTROL DEVICES NOT REQUIRED IF A PRESSURE TANK CAPABLE OF MAINTAINING WORKING PRESSURES SUFFICIENT AT ALL TIMES TO PREVENT HYDROCARBON VAPOR OR GAS LOSS.
	(b) STATIONARY GASOLINE STORAGE TANKS WITH >250 GALLON CAPACITY		X		PERMANENT	OR IS A PRESSURE TANK CAPABLE OF MAINTAINING WORKING PRESSURES SUFFICIENT AT ALL TIMES TO PREVENT HYDROCARBON VAPOR OR GAS LOSS.
MONTANA	ANY STATIONARY TANK WITH >63,000 GALLON CAPACITY USED TO STORE GASOLINE OR PETROLEUM DISTILLATE WITH A VAPOR PRESSURE ≥2.5 PSIA	NOT PERMITTED IF VAPOR PRESSURE ≥13.0 PSIA	X		X	
NEVADA	(a) ANY NEW RESERVOIR, STATIONARY TANK, OR OTHER CONTAINER USED TO STORE GASOLINE, PETROLEUM DISTILLATE, OR VOLATILE ORGANIC COMPOUND WITH A VAPOR PRESSURE ≥1.5 PSIA UNDER ACTUAL STORAGE CONDITIONS	NOT PERMITTED IF VAPOR PRESSURE ≥11.0 PSIA.		X		CONTROL DEVICES NOT REQUIRED IF A PRESSURE TANK MAINTAINING WORKING PRESSURE SUFFICIENT AT ALL TIMES TO PREVENT VAPOR OR GAS LOSS.
	(b) ANY OTHER PETROLEUM OR VOLATILE ORGANIC COMPOUND STORAGE TANK CONSTRUCTED OR ALTERED/REMODELED AFTER EFFECTIVE DATE OF REGULATION			APPROVED BY THE DEPARTMENT.	X	
NEW YORK	(a) ANY STATIONARY TANK, RESERVOIR, OR OTHER CONTAINER WITH >63,000 GALLON CAPACITY	NOT PERMITTED IF VAPOR PRESSURE ≥11 PSIA	X	MAY BE APPROVED BY THE COMMISSIONER.		CONTROL DEVICES NOT REQUIRED IF A PRESSURE TANK CAPABLE OF MAINTAINING WORKING PRESSURES SUFFICIENT AT ALL TIMES TO PREVENT VAPOR OR GAS LOSS.
	(b) ANY STATIONARY GASOLINE STORAGE TANKS WITH >275 GALLON CAPACITY		X	MAY BE APPROVED BY THE COMMISSIONER.	PERMANENT	CONTROL DEVICES NOT REQUIRED IF A PRESSURE TANK CAPABLE OF MAINTAINING WORKING PRESSURES SUFFICIENT AT ALL TIMES TO PREVENT VAPOR OR GAS LOSS.

TABLE XXII REGULATIONS APPLICABLE TO PETROLEUM STORAGE

	CONTAINER	CONTROL DEVICES WHICH ARE PERMITTED: FLOATING ROOF	VAPOR RECOVERY SYSTEM	EQUIPMENT OF EQUAL EFFICIENCY	SUBMERGED FILL PIPE	REMARKS
NEW MEXICO ALBUQUERQUE AIR POLLUTION CONTROL CO.	ANY GASOLINE STORAGE TANK, RESERVOIR, OR OTHER CONTAINER WITH >40,000 GALLON CAPACITY USED TO STORE ANY PETROLEUM PRODUCT WITH A REID VAPOR PRESSURE 21.5 PSIA.	X	X			ALSO BUT NOT LIMITED TO: (1) PRESSURE TANK OPERATED AT PRESSURES >ATMOSPHERIC AND WHICH ALLOWS NO VAPORS TO BE EMITTED TO ATMOSPHERE. (2) FLOATING PLASTIC BLANKET. (3) VAPOR BALANCE SYSTEM. (4) VAPOR DISPOSAL SYSTEM. (5) PAINTING TO REFLECT RADIATION.
NORTH CAROLINA	ANY STATIONARY TANK, RESERVOIR, OR OTHER CONTAINER WITH >39,000 GALLON CAPACITY USED TO STORE ANY LIQUID COMPOUND CONTAINING CARBON AND HYDROGEN HAVING A VAPOR PRESSURE 21.5 PSIA UNDER ACTUAL STORAGE CONDITIONS.	NOT PERMITTED IF SUBJECT TO PHOTOCHEMICALLY REACTIVE MATERIAL WITH A VAPOR PRESSURE 211.0 PSIA UNDER ACTUAL STORAGE CONDITIONS.	CAPABLE OF REDUCING EMISSION OF ORGANIC MATERIALS BY AT LEAST 90% BY WEIGHT.	MAY BE APPROVED BY THE BOARD.		CONTROL DEVICES NOT REQUIRED IF A PRESSURE TANK CAPABLE OF MAINTAINING WORKING PRESSURES SUFFICIENT AT ALL TIMES TO PREVENT VAPOR OR GAS LOSS.
NORTH DAKOTA	(a) ANY NEW STATIONARY TANK, RESERVOIR, OR OTHER CONTAINER WITH >65,000 GALLON CAPACITY.	NOT PERMITTED IF VAPOR PRESSURE 211.0 PSIA UNDER ACTUAL STORAGE CONDITIONS.	X	MAY BE APPROVED BY THE DEPARTMENT.		CONTROL DEVICES NOT REQUIRED IF A PRESSURE TANK CAPABLE OF MAINTAINING WORKING PRESSURE SUFFICIENT AT ALL TIMES TO PREVENT VAPOR OR GAS LOSS.
	(b) ANY NEW STATIONARY VOLATILE ORGANIC COMPOUND STORAGE TANK WITH 71000 GALLON CAPACITY.		X		X	OR IS A PRESSURE TANK CAPABLE OF MAINTAINING WORKING PRESSURES SUFFICIENT AT ALL TIMES TO PREVENT VAPOR OR GAS LOSS.
OHIO	(a) ANY STATIONARY TANK RESERVOIR OR OTHER CONTAINER WITH >65,000 GALLON CAPACITY	NOT PERMITTED IF VAPOR PRESSURE 212.5 PSIA UNDER ACTUAL STORAGE CONDITIONS.	CAPABLE OF REDUCING EMISSION OF ORGANIC MATERIALS BY AT LEAST 90% BY WEIGHT.	MAY BE APPROVED BY THE BOARD.		THESE REGULATIONS APPLY TO ALL EXISTING STATIONARY SOURCES IN PRIORITY 1 REGIONS AND TO ALL NEW STATIONARY SOURCES REGARDLESS OF LOCATION - MUST BE A PRESSURE TANK CAPABLE OF MAINTAINING WORKING PRESSURES SUFFICIENT AT ALL TIMES TO PREVENT VAPOR OR GAS LOSS.
	(b) ANY STATIONARY STORAGE VESSEL WITH >250 GALLON CAPACITY USED TO STORE VOLATILE PHYTOCHEMICALLY REACTIVE MATERIALS.		X		PERMANENT	OR IS A PRESSURE TANK, OR IS LOADED THROUGH A PERMANENT LOADING TUBE INSERTED BELOW THE LIQUID LEVEL.
OKLAHOMA	(a) ANY NEW STATIONARY TANK, RESERVOIR OR OTHER CONTAINER WITH >40,000 GALLON CAPACITY.	NOT PERMITTED IF VAPOR PRESSURE 211.0 PSIA UNDER ACTUAL STORAGE CONDITIONS.	X	MAY BE APPROVED BY THE DIRECTOR.		CONTROL DEVICES NOT REQUIRED IF A PRESSURE TANK CAPABLE OF MAINTAINING WORKING PRESSURES SUFFICIENT AT ALL TIMES TO PREVENT ORGANIC VAPOR OR GAS LOSS.
	(b) ANY NEW STATIONARY SEMI-PERMANENT OR PERMANENT STORAGE TANK WITH [illegible] GALLON CAPACITY.		X		PERMANENT	
OREGON COLUMBIA-WILLAMETTE AND WILLAMETTE	(a) ANY RESERVOIR OR CONTAINER >40,000 GALLON CAPACITY FOR STORAGE OF GASOLINE OR ANY VOLATILE PETROLEUM DISTILLATE OR ORGANIC LIQUID HAVING A VAPOR PRESSURE 21.5 PSIA UNDER ACTUAL STORAGE CONDITIONS.	X	X	X		
	(b) ANY GASOLINE TANKS WITH 2500 GALLON CAPACITY.			X	X	
LANE REGIONAL	ANY GASOLINE TANK WITH 2500 GALLON CAPACITY.			X	PERMANENT	
PENNSYLVANIA	ANY STATIONARY TANK, RESERVOIR, OR OTHER CONTAINER WITH >40,000 GALLON CAPACITY.	NOT PERMITTED IF VAPOR PRESSURE 211.0 PSIA UNDER ACTUAL STORAGE CONDITIONS.	X			CONTROL DEVICES NOT REQUIRED IF A PRESSURE TANK CAPABLE OF MAINTAINING OPERATING PRESSURES SUFFICIENT AT ALL TIMES TO PREVENT VAPOR OR GAS LOSS.
PHILADELPHIA	(a) ANY STATIONARY STORAGE TANK OR CONTAINER WITH 240,000 GALLON CAPACITY STORING AN ORGANIC MATERIAL HAVING A VAPOR PRESSURE 21.5 PSIA.	X	X	APPROVED BY THE DEPARTMENT.		OR A PRESSURE TANK MAINTAINING A PRESSURE AT ALL TIMES SO AS TO PREVENT ORGANIC MATERIAL LOSS TO THE ATMOSPHERE.
	(b) ANY STATIONARY STORAGE TANK OR CONTAINER WITH 240,000 GALLON CAPACITY STORING AN ORGANIC MATERIAL HAVING A VAPOR PRESSURE 211.0 PSIA AT ACTUAL STORAGE CONDITIONS		X	APPROVED BY THE DEPARTMENT		OR IS A PRESSURE TANK MAINTAINING A PRESSURE AT ALL TIMES SO AS TO PREVENT ORGANIC MATERIAL LOSS TO THE ATMOSPHERE.

TABLE XXII REGULATIONS APPLICABLE TO PETROLEUM STORAGE

	CONTAINER	CONTROL DEVICES WHICH ARE PERMITTED				REMARKS
		FLOATING ROOF	VAPOR RECOVERY SYSTEM	EQUIPMENT OF EQUAL EFFICIENCY	SUBMERGED FILL PIPE	
TEXAS BEXAR, DALLAS, EL PASO, GALVESTON, HARRIS, NUECES, AND TRAVIS COUNTIES	(a) ANY STATIONARY TANK, RESERVOIR, OR OTHER CONTAINER WITH >50,000 GALLON CAPACITY.	NOT PERMITTED IF VAPOR PRESSURE >11.0 PSIA UNDER ACTUAL STORAGE CONDITIONS.	X	MAY BE APPROVED BY THE EXECUTIVE SECRETARY OF TEXAS AIR CONTROL BOARD.	PERMANENT	THESE REGULATIONS DO NOT APPLY TO CRUDE OIL. CONTROL DEVICES NOT REQUIRED IF A PRESSURE TANK CAPABLE OF MAINTAINING WORKING PRESSURES SUFFICIENT AT ALL TIMES TO PREVENT VAPOR OR GAS LOSS.
	(b) ANY NEW STATIONARY STORAGE VESSEL WITH >1000 GALLON CAPACITY.		X			OR IS A PRESSURE TANK CAPABLE OF MAINTAINING WORKING PRESSURES SUFFICIENT AT ALL TIMES TO PREVENT VAPOR OR GAS LOSS.
VIRGINIA	(a) ANY STATIONARY TANK RESERVOIR OR OTHER CONTAINER WITH >65,000 GALLON CAPACITY.	NOT PERMITTED IF VAPOR PRESSURE >17.0 PSIA AT 100°F OR 15 LBS REID VAPOR PRESSURE, WHICHEVER IS LIMITING.	X	MAY BE APPROVED BY THE BOARD.	X	CONTROL DEVICES NOT REQUIRED IF A PRESSURE TANK CAPABLE OF MAINTAINING WORKING PRESSURES SUFFICIENT AT ALL TIMES TO PREVENT VAPOR OR GAS LOSS.
	(b) ANY STATIONARY STORAGE VESSEL WITH >250 GALLON CAPACITY.		X			OR IS A PRESSURE TANK CAPABLE OF MAINTAINING WORKING PRESSURES SUFFICIENT AT ALL TIMES TO PREVENT VAPOR OR GAS LOSS.
WISCONSIN SE WISC AQCR	(a) ANY STORAGE TANKS WITH >40,000 GALLON CAPACITY. (b) ALL TANKS WITH >1000 GALLON CAPACITY.	X	X	X	PERMANENT	[ORGANIC COMPOUNDS EMISSIONS INTO THE AMBIENT AIR SHALL NOT BE ALLOWED WHICH WILL SUBSTANTIALLY CONTRIBUTE TO THE EXCEEDING OF AN AIR STANDARD OR CAUSE AIR POLLUTION.] MUST TAKE REASONABLE PRECAUTIONS TO PREVENT HYDROCARBON ESCAPE OR EMISSION. OR USE A PRESSURE TANK. ALSO APPLIES TO ALL NEW SOURCES IN THE STATE. ONLY IF IT DOES NOT HAVE THE CONTROL DEVICES SPECIFIED FOR TANKS >40,000 GALLON CAPACITY.
WYOMING	ANY STATIONARY TANK, RESERVOIR, OR OTHER CONTAINER WITH >65,000 GALLON CAPACITY USED TO STORE GASOLINE OR PETROLEUM DISTILLATES WITH REID VAPOR PRESSURE >1 LBS.	X	X	X		OR IS A PRESSURE TANK CAPABLE OF MAINTAINING WORKING PRESSURES SUFFICIENT AT ALL TIMES TO PREVENT VAPOR OR GAS LOSS.
PUERTO RICO	ANY STATIONARY TANK, RESERVOIR, OR OTHER CONTAINER WITH >40,000 GALLON CAPACITY.	NOT PERMITTED IF VAPOR PRESSURE ≥11.0 PSIA UNDER ACTUAL STORAGE CONDITIONS.	X	MAY BE APPROVED BY THE BOARD.		CONTROL DEVICES NOT REQUIRED IF A PRESSURE TANK CAPABLE OF MAINTAINING WORKING PRESSURE SUFFICIENT UNDER NORMAL OPERATING CONDITIONS TO PREVENT VAPOR OR GAS LOSS.
VIRGIN ISLANDS	ANY STATIONARY TANK, RESERVOIR, OR OTHER CONTAINER WITH >65,000 GALLON CAPACITY USED TO STORE PETROLEUN OR VOLATILE PRODUCTS HAVING A VAPOR PRESSURE ≥2.0 PSIA UNDER ACTUAL STORAGE CONDITIONS.	NOT PERMITTED IF VAPOR PRESSURE ≥12.0 PSIA UNDER ACTUAL STORAGE CONDITIONS.	X	APPROVED BY THE COMMISSIONER.		CONTROL DEVICES NOT REQUIRED IF A PRESSURE TANK MAINTAINING WORKING PRESSURES SUFFICIENT AT ALL TIMES TO PREVENT HYDROCARBON VAPOR OR GAS LOSS.

TABLE XXIII

REGULATIONS APPLICABLE TO CARBON MONOXIDE

STATE	REGULATIONS APPLICABLE TO FERROUS METAL SMELTERS	REGULATIONS APPLICABLE TO PETROLEUM REFINING EMISSIONS	REGULATIONS APPLICABLE TO REFUSE INCINERATION AND BURNING EQUIPMENT	OTHER REGULATIONS
Alabama	✓	✓		
California				Los Angeles APCD - Limits emission of CO from all stationary sources except internal combustion engine to 0.2% by volume. South Coast Air Basin - limits CO emission from all stationary sources except internal combustion engine to 2000 ppm.
Connecticut	✓	✓		
Delaware (New Castle County only)		✓		
Illinois	Limit emissions of CO to 200 ppm corrected to 50% excess air.	Limit emissions of CO to 100 ppm corrected to 50% excess air.	The emissions of CO from fuel burning in excess of 200 ppm corrected to 50% excess air. No emission of CO from incineration in excess of 500 ppm corrected to 50% excess air.	
Indiana	✓[1]	(Plant capacity 710 tons/hr. process weight)	✓[1]	
Kansas	✓	✓		
Louisiana	✓	✓		No emission of CO from any installation which will cause ambient air quality standards to be exceeded (10,000 g/m^3 or 9 ppm (max. 8-hr. concentration) 40,000 g/m^3 or 35 ppm (max. 1-hr. concentration).

TABLE XXIII (CONCLUDED)

Maryland (Areas III and IV)	✓	✓		No emission of CO gas from any installation which, without emission control measures, would discharge CO at a rate exceeding 12% by volume, unless burned at 1300°F or more for 0.3 seconds or longer in direct flame afterburner, or equivalent device
Ohio	✓	✓		
Oklahoma	Emissions reduced by use of complete secondary combustion of waste gas generated. Removal of 93% or more of CO generated will be considered complete secondary combustion.	Emissions reduced by use of completed secondary combustion of waste gas generated. Removal of 93% or more of CO generated will be considered complete secondary combustion.		
Texas	✓[2]	✓[1]		
Virginia		✓		
Wisconsin	✓	✓		

[1] No temperature or time specified.

[2] At 1300°F for 0.25 seconds.